

PLASMA DISPLAY

Owner's Instructions

HP-P5581



This device is a Class B digital apparatus.

Important Warranty Information Regarding Television Format Viewing

Wide screen format PDP Displays (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature and the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on nonexpanded standard format television video and programming, should be limited to no more than 5% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying stationary images that exceed the above guidelines can cause uneven aging of PDP Displays that leave subtle, but permanent burned-in ghost images in the PDP picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars.

On PDP models that offer picture sizing features, use these controls to view different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven PDP aging as a result of format selection and use, as well as burned-in images, are not covered by your Samsung limited warranty.

User Instructions

Screen Image retention

Do not display a still image (such as on a video game) on the plasma display panel for more than several minutes as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, refer to page 52 of this manual to reduce the degree of brightness and contrast of the screen when displaying a still image.

Altitude

The PDP will not operate normally at altitudes above 6500 ft.

Heat on the top of the PDP TV

The top side of the product may be hot after long periods of use as heat dissipates from the panel through the vent hole in the upper part of the product.

This is normal and does not indicate any defect or operation failure of the product.

However, children should be prevented from touching the upper part of the product.

The product is making a 'cracking' noise.

A 'cracking' noise may occur when the product contracts or expands due to a change of surrounding environment such as temperature or humidity. This is normal and not a defect of the unit.

Cell Defects

The PDP uses a panel consisting of 1,230,000(SD-level) to 3,150,000(HD-level) pixels which require sophisticated technology to produce. However, there may be few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

Avoid operating the TV at temperatures below 5°C(41°F)

A still image displayed too long may cause permanent damage to the PDP Panel.



Watching the PDP TV in 4:3 format for a long period of time may leave traces of borders displayed on the left, right and center of the screen caused by the difference of light emission on the screen.

Playing a DVD or a game console may cause similar effect to the screen. Damages caused by the above effect are not covered by the Warranty.

Afterimage on the Screen.

Displaying still images from Video games and PC for longer than a certain period of time may produce partial afterimages.

To prevent this effect, reduce the 'brightness' and 'contrast' when displaying still images for a long time.

Warranty

Warranty does not cover any damage caused by image retention. Burn-in is not covered by the warranty.

CableCARD and Digital Cable Ready TVs

CableCARD and Digital Cable Ready TVs are the products of a new digital cable standard. This new standard is called OpenCable and it is a concerted effort to standardize the digital cable service network interface in North America. For more information, please refer to www.cablelabs.com.

Digital Cable Ready TVs are equipped with a proper digital cable tuner to receive digital cable signals from your local cable service provider. They are also designed to work with digital cable card modules (PCMCIA card modules called CableCARDs). These PCMCIA card modules or CableCARDs will be provided by your local cable service provider after a proper subscription process.

The provided CableCARD from your local cable service provider needs to be inserted into the CableCARD slot of a Digital Cable Ready TV. Please refer to page 25 for how to insert the CableCARD.

A digital set-top box which used to be provided by the cable service provider is no longer needed with Digital Cable Ready TVs and CableCARDs.

When the CableCARD is inserted into the slot, the TV screen will show a message that CableCARD is inserted and necessary data such as channel information or subscription information will be downloaded from your digital cable service provider. When you insert CableCARD for the first time, this process may take few minutes depending on the amount of data your cable provider needs to send. During this process, the digital cable service provider or CableCARD may display messages on the TV screen to help or give you further information.

Please contact your local cable provider for more information on service availability and how to acquire a CableCARD.

Notes

- This television receiver supports the copy protection system regulated by DTLA (Digital Transmission Licensing Administrator). It should be noted that copy protected content may not be viewable depending on your particular connections.
- Some channels may be scrambled depending on your cable service provider.
 When you tune to these channels, no screen or a still screen may appear. In order to view the screen properly, you have to go through a subscription process after contacting your service provider. It will take several minutes to update the channel information depending on your cable service provider.

Q&A

1. Is the antenna I use for existing TV reception good enough for DTV?

Over-the-air (OTA) digital TV broadcasting uses the same channels as analog TV and works well with many existing TV antennas. However, DTV broadcast channel assignments are different than analog channels. You should find out whether your local DTV broadcasts are on VHF (channels 2-13) or UHF (channels 14-69) to see if you need a different antenna.

If your DTV channels are on UHF and you already get good UHF reception, your present antenna may work fine. The same holds true for VHF DTV reception. Note that in some markets, both VHF and UHF channels are used for DTV broadcasts.

You can find out the latest DTV channel assignments for your area by browsing selected Internet web sites such as www.titantv.com, www.10000watts.com, and www.fcc.gov.

2. How difficult is it to receive DTV signals indoors?

This depends on whether your local DTV stations are running full power or not and how close your location is to the transmission tower. DTV receivers do not require as much signal as analog TV receivers to produce high-quality images and sound.

Once the DTV signal level exceeds a certain threshold at the receiver, the digital video and audio data is decoded at the same quality it was originally encoded for broadcast. This is a big advantage for DTV over analog TV - there is no noise, ghosting, static, or scratchy audio.

3. How can I connect an antenna in my townhouse, co-operative apartment, condominium, or apartment?

The Federal Communications Commission's OTARD Rule (part of the Telecommunications Act of 1996) allows residents of condominiums, townhouse, or members of neighborhood associations to put up outside antennas for reception of broadcast TV signals as long as those antennas are not located in common areas and are no more than 12' in height.

Residents of rental units (apartments, etc.) are not covered by the OTARD rules and will have to use indoor antennas to receive DTV broadcasts. It is possible that the landlord of an apartment complex can provide broadcast DTV signals via a master TV antenna system to each apartment.

4. Can I connect my DTV set-top receiver to my cable TV service?

Cable TV systems use a different method for transmitting digital TV programs that is currently incompatible with broadcast DTV set-top receivers. So you will still need to use an outdoor or indoor antenna to receive OTA broadcast DTV programs.

The good news is that you won't have to pay a monthly or per-program charge to watch OTA DTV and HDTV programs. They're free, unlike subscription satellite TV or premium cable TV. All you need is an antenna and a DTV set-top receiver to enjoy clear, sharp widescreen images and high-quality audio.

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<u>Note</u>

 The information contained in this User's Manual is subject to change without prior notice for improvement, and may vary depending on the version of the PDP TV's software and the regional conditions.



General Information

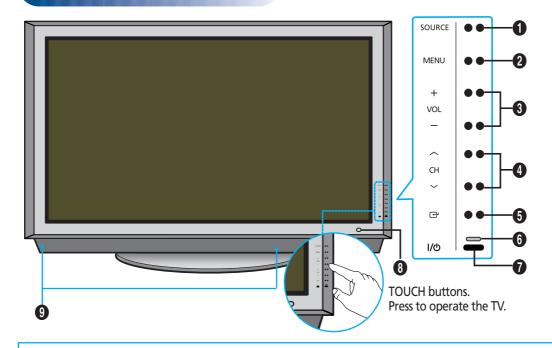


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Your New Plasma Display Panel

Front Panel



SOURCE button

Press to display all of the available video sources (TV, AV1, AV2, S-VIDEO1, S-VIDEO2, COMPONENT, DVI, and HDMI).

MENU button

Displays the main on-screen menu.

3 VOL(+,-) button

Press to increase or decrease the volume. Also used to select or adjust items on the on-screen menu.

 \bullet CH(\wedge , \vee) button

Press CH or CH to change channels.

Also used to move up or down in the on-screen menu.

⑤ ENTER(**⊡**) button

Press to confirm a selection.

- **6** Power Indicator
 - Power Off : Red - Power On : Off
- Timer On : Green
- Press to turn the PDP on and off.
- 8 Remote Control Signal Receiver Aim the remote control towards this spot on the PDP.
- 9 Speakers

Checking Accessories

Once you have unpacked your PDP, check to make sure that you have all the parts shown here. If any piece is missing or broken, call your dealer.



Owner's Instructions



Remote Control/ AAA Batteries (BN59-00443A)



Ferrite Core for Side AV Cable, Digital Audio Out(Coaxial), Sub Woofer (3301-001201)



Ferrite Core for Speaker cable (3301-001502)



Power Cord (3903-000144)



Antenna Cable (BN39-00333A)

Sold Separately



S-VIDEO Cable (AA39-40001E)

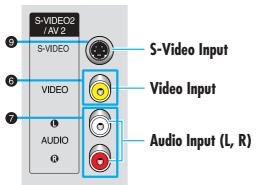


DVI Cable (BN39-00072A)



Component Cables (RCA) (AA39-00033A)

Side of the TV

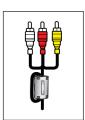




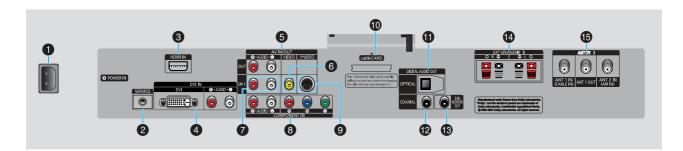
Ferrite Cores

The ferrite cores are used to attenuate undesired signals. When connecting cables, attach one of these ferrite cores to the cable near the connector.

When you connect Side AV cable, Digital Audio out(Coaxial), sub woofer cable, and Speaker cables, first bind the ferrite core around each cables to secure it.



Rear Panel



O POWER IN

Connect the supplied power cord.

2 SERVICE

Connector for service only.

13 HDMI IN

Connect to the HDMI jack of a device with HDMI output.

4 DVI IN (DVI / R-AUDIO-L)

Connect to the digital video and audio output jack of a device with DVI output.

5 AV IN/OUT (R-AUDIO-L)

Audio outputs for external device.

6 VIDEO

Video inputs for external devices, such as a camcorder or VCR.

R-AUDIO-L

Audio inputs for external devices, such as a camcorder or VCR.

3 COMPONENT IN

Video (Y/PB/PR) and audio (L-AUDIO-R) inputs for component.

OS-VIDEO

Video inputs for external devices with an S-Video output, such as a camcorder or VCR.

(1) cable CARD

Insert the cableCARD into the slot.

(1) OPTICAL DIGITAL AUDIO OUT

Connect to a Digital Audio component.

@ COAXIAL DIGITAL AUDIO OUT

Connect to a Digital Audio component.

® SUB-WOOFER OUT

Connect to an active SUB-WOOFER.

\triangle EXT SPEAKER (8 Ω)

Connectors for external rear speakers.

\bigcirc ANT (75 Ω)

 75Ω Coaxial connector for Antenna/Cable Network.

<u>Note</u>

The HDMI IN, DVI IN jack is not compatible with PC.



Remote Control Buttons

Remote Control

POWER button

Turns the PDP on and off.

2 ANTENNA button

Press to select "AIR" or "CABLE".

- **3** Number buttons
- **4** button

Press to select additional channels (digital and analog) being broadcast by the same station. For example, to select channel "54-3", press "54", then press "-" and "3".

6 MUTE button

Press to mute the PDP sound.

6 VOL (Volume) buttons

Use it to adjust volume.

7 GUIDE button

Press to display he on-screen Electronic Program Guide (EPG).

MENU button

Displays the main on-screen menu.

© ENTER button

Confirms a selection.

FAV. CH button

Press to switch to your favorite channels.

Displays the channel list.

P LCD Display

When you press a button, ' ? appears along with selected mode (TV, VCR, CATV, DVD, or STB) and the remote's battery charge status.

® P.MODE button

Adjust the PDP picture by selecting one of the preset factory settings (or select your personal, customized picturé settings).

MODE button

Selects a target device to be controlled by the Samsung remote control (i.e., VCR, Cable box, DVD players, or Samsung STB). If you change modes, the new mode is momentarily displayed on LCD.

(B) PRE-CH button

Tunes to the previous channel.

SOURCE button

Press to display all of the available video sources (TV, AV1, AV2, S-VIDEO1, S-VIDEO2, COMPONENT, DVI, and HDMI).

TO CH (Channel) buttons

Use it to switch channels.

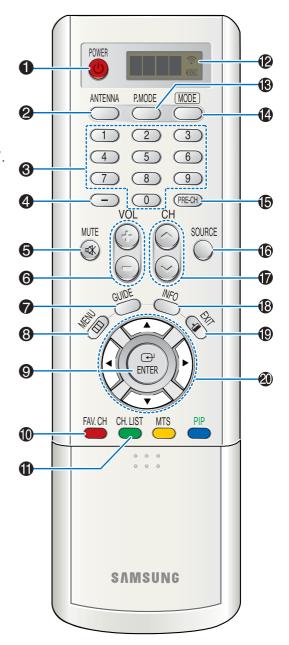
(B) INFO button

Press to display information on the PDP screen.

EXIT button

Press to exit the menu.

② Up/Down Left/Right buttons Control the cursor in the menu.



4 MTS button

Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

22 PIP button

Activates picture in picture.

43 ASPECT button

Press to change the screen size.

② STILL button

Press to pause the current screen.

② DNIe button

Activates DNIe (Digital Natural Image engine).

② SRS button

Selects TruSurround XT mode.

3 SET button

Used during set up of this Samsung remote control, so that it will work compatibly with other devices (VCR, Cable Box and DVD).

23 SLEEP button

Press to select a preset time interval for automatic shut off.

2 PIP control buttons

CH△, ☑: Displays the available channels in sequence. (These buttons change channels in the PIP window only.)

© CAPTION button

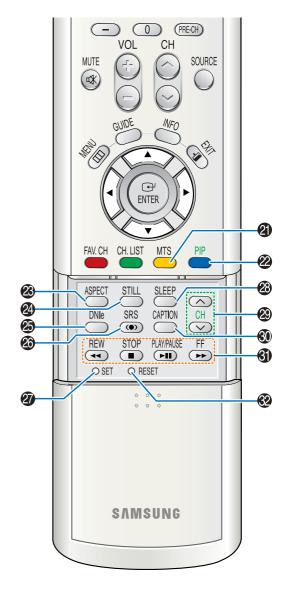
Controls the caption decoder.

(1) VCR, DVD control buttons

Controls VCR tape or DVD disc functions: Stop, Rewind, Play/Pause, and Fast Forward.

® RESET button

If your remote control is not functioning properly, take out the batteries and press the reset button for about 2~3 seconds. Re-insert the batteries and try using the remote control again.



1 Slide the back cover to open the battery compartment of the remote control. 2 Install two AAA size batteries. Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment. 3 Slide the cover back into place.



Remote Control Operation Range.

You can use your remote control within a distance of 23 feet and an angle of 30 degrees from the left and right sides of the PDP's remote control receiver.



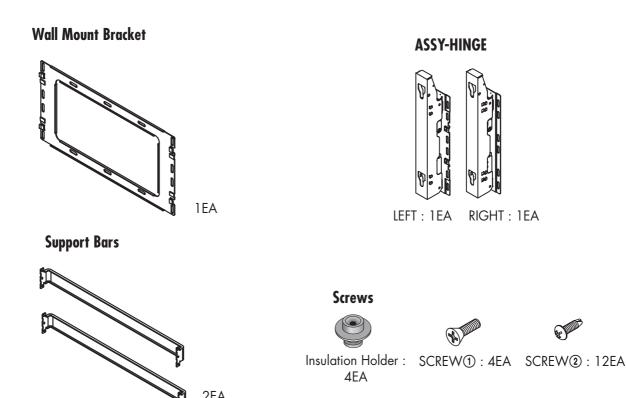
Wall Installation Instructions

Installation Notes

Do not install the PDP on any location other than a vertical wall.

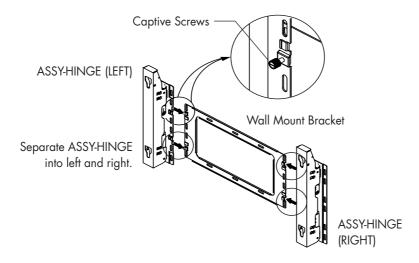
- To protect the performance of the PDP and prevent problems, avoid the following locations:
 - Do not install next to smoke and fire detectors.
 - Do not install in an area subjected to vibration or high voltage.
 - Do not install near or around any heating apparatus.
- O Use only recommended parts and components.

Parts (Wall attachment panel is sold separately. Check with your dealer.)



How to assemble the Wall Mount Bracket

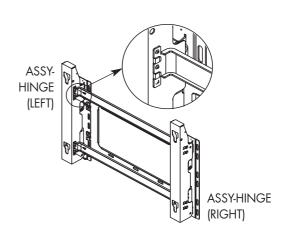
The wall mount comes packaged in 3 parts. These parts must be assembled together. Please tighten the captive screws(4EA) in the direction of the arrow after assembling the bracket. Install the Wall Mount Bracket after the screws are securely inserted into the wall.



- After installing the wall mount bracket, assemble the support bars and hinges (as illustrated) using screws provided. (12 screws(②) are provided. For safety reasons, make sure all 12 screws are firmly attached.)
- ASSY-HINGE (LEFT)
 Support Bars

 Support Bars

 ASSY-HINGE (RIGHT)
- After securing the screws, be sure that every part is firmly attached (as shown in the illustration).

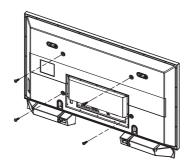




Wall Installation Instructions

Fixing the PDP panel to the wall attachment panel bracket

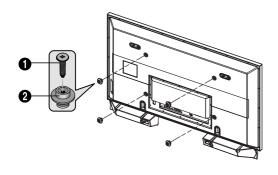
Remove the screws from the back of the PDP.



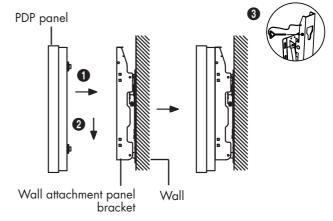
- Connect insulation holders to screws (see the illustration below).
 - If you are uncertain about installation, hire a specialist to install the wall mount bracket.
 - Be sure to check that the insulation holders are completely secured on both the left and right side after hanging the PDP on the wall mount bracket.
 - Be careful to avoid getting your fingers caught during installation.
 - Make sure the wall attachment panels are tightened. Otherwise the PDP may fall.



Tighten the screws of the insulation holders to the back of the PDP.



Put the 4 insulation holders on the PDP in the grooves of the wall mount bracket and pull down on the PDP (1) to secure it to the wall mount bracket (2). Tighten the screws as shown (3) so that the PDP cannot be separated from wall mount bracket.



<u>Note</u>

• A 5 inch(12.7 cm) gap is needed between the back of the Plasma TV and the wall.

How to Adjust Mounting Angle

Note: Please secure the mounting bracket on the wall surface after setting its angle at 0°.

Factory default



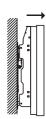
Please tighten the captive screw in the direction of the arrow after assembling the bracket.

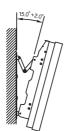
How to Adjust Mounting Angle



Hold onto the middle of the PDP to adjust the angle (not the sides of the PDP).

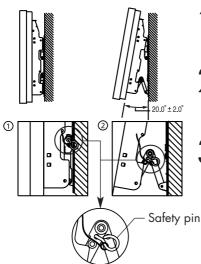
Change Angle





- Secure the set to the wall mount bracket. (Please refer to the following instructions.)
- 2 Set the angle by pulling the upper end of the set attached to bracket in the direction of the arrow.
- $\mathbf{2}$ The angle can be adjusted from 0° to 15° by ±2°.

Connecting External Devices to the PDP



- Be sure to remove the safety pins underneath the PDP. (Caution: If the safety pins are not removed, the angle cannot be adjusted.) Any attempt to do so may cause damage to the PDP.
- 2 Hold onto the bottom of the PDP and pull forward fully as directed by the arrow(as illustrated) to adjust the angle. (0°~20° by 2°). Insert the safety pins to the front guide holes on both sides as illustrated in figure 2.
- 3 Viewing the PDP after connecting the external devices. Remove the safety pins to adjust the angle to 0°, then secure the safety pins again. (Warning: For safety, be sure to secure the PDP using the safety pins. If the safety pins are not used, the PDP may fall, causing serious injury.)

Notes

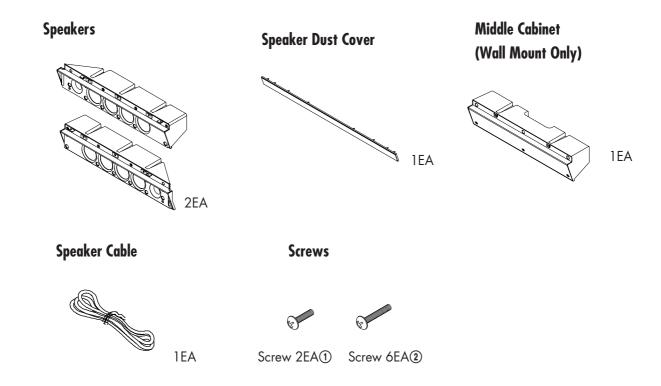
- Contact an authorized technician when installing the wall attachment panel.
- After hanging the PDP panel on the wall attachment panel, make sure that the Insulation holders are completely hung.
- Be careful not to get your fingers caught during installation.
- Make sure the wall attachment panel brackets are tightened. Otherwise, the PDP panel may fall down.
- Please secure the mounting bracket on the wall surface after setting its angle at 0°.



Installing the Speakers

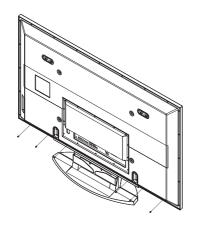
This speaker installation guide is for the PSN5542(BN96-01328A) speakers.

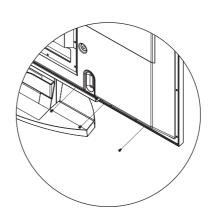




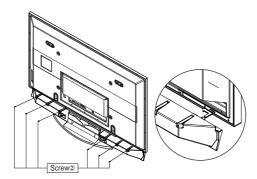
How to Assemble the Speakers (When using the Stand)

Remove the screws indicated on the rear of the PDP (6 screws on the left and right sides).

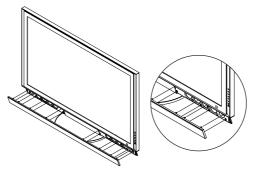




Set the speaker guide bracket into the square grooves located on either side of the PDP's bottom rear, then push the speaker guide bracket towards the center (as the arrow illustrates). Secure the speaker guide bracket with provided screws ②. (Always use the proper screws, as indicated.)



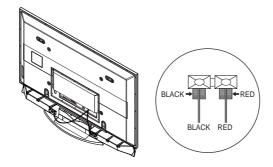
3 Secure the speaker dust cover by setting it into the grooves located on the front side of the speakers.



Connect the speakers to the PDP using the speaker cable.

The connection terminals are on the rear side of both the PDP and the speakers.

(Match the color coded terminals and cables.)



Notes

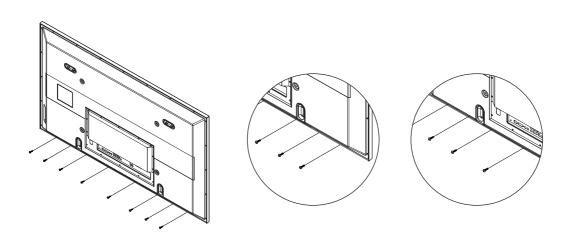
- When moving the PDP with the speakers attached, be sure to hold onto the PDP to prevent damage. (Damage may occur to the speaker connecting brackets or the speakers.)
- Speakers of 8Ω impedance, 15W Nom. Power, 30W Max. Power is recommended.



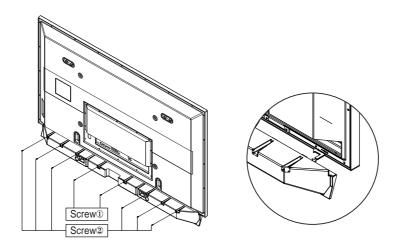
Installing the Speakers



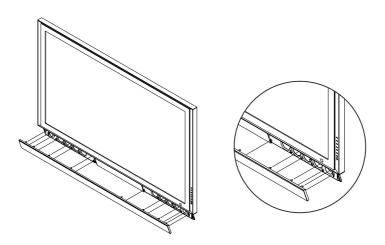
Remove the screws indicated on the rear of the PDP (6 screws on the left and right sides, 2 screws on the center).



Set the speaker guide bracket into the square grooves located on either side of the PDP's bottom rear, then push the speaker guide bracket towards the center (as the arrow illustrates). Secure the speaker guide bracket with provided screws ②. Secure the middle cabinet to the center of the PDP with a screw ①. (Always use the proper screws, as indicated.)



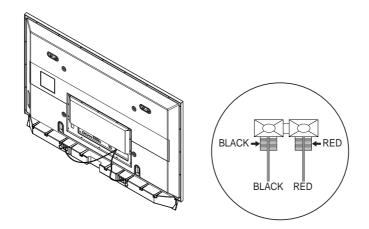
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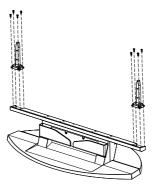
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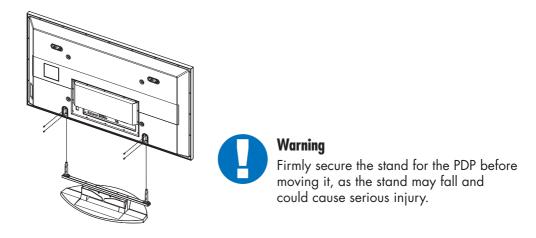


How to assemble the Stand-Base

Firmly secure the pegs to the both sides of the stand base using 8 screws provided.



2 Using the 4 screws for securing the stand pegs and the monitor, firmly attach the monitor to the stand pegs. (The exterior of the set may be different than the picture.)



Two or more people should carry the PDP. Never lay the PDP on the floor because of possible damage to the screen. Always store the PDP upright.





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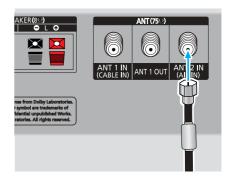
Connecting VHF and UHF Antennas

Antennas with 75-ohm Round Leads

If your antenna looks like this: it has 75-ohm round leads.

Plug the antenna lead into the ANT 2 IN(AIR IN) on the PDP.

Use the antenna cable, an accessory included in the product package.



<u>Note</u>

 When Antenna is set to AIR, ANT 1 IN(CABLE IN) signal will be the output from ANT1 OUT. (See "Selecting the antenna." on page 84.)



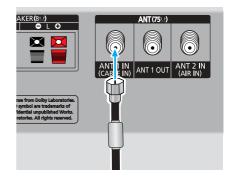
Connecting Cable TV

You can connect different cable systems to your PDP, including cable without a Cable box, and cable with a Cable box that descrambles some or all channels.

Cable without a Cable Box

Plug the incoming cable into the ANT 1 IN(CABLE IN) on the PDP.

Use the antenna cable, an accessory included in the product package.



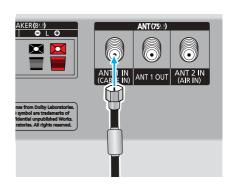
Cable with a Cable Box that Descrambles All Channels

Find the cable connected to the ANTENNA OUT terminal on your Cable box. This terminal might be labeled "ANT OUT", "VHF OUT" or simply "OUT".



2 Connect the cable to the ANT 1 IN(CABLE IN) on the PDP.

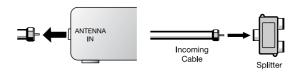
Use the antenna cable, an accessory included in the product package.



Cable with a Cable Box that Descrambles Some (But Not All) Channels

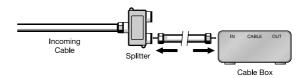
To complete this connection you will need a two-way splitter, an RF (A/B) switch, and four coaxial cables (which you can buy from your Samsung dealer or any electronics store).

Find and disconnect the cable that is connected to the ANTENNA IN terminal of your Cable box. This terminal might be labeled "ANT IN", "VHF IN" or simply, "IN". Connect this



2 Connect a coaxial cable between an OUT terminal of the splitter and the IN terminal of the Cable box.

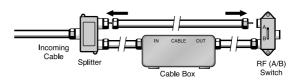
cable to a two-way splitter.



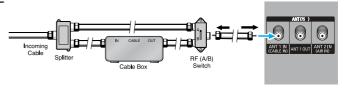
3 Connect a coaxial cable between the ANTENNA OUT terminal of the Cable box and the B-IN terminal of the A/B switch.



Connect a coaxial cable between the ANTENNA OUT terminal of the Cable box and the B-IN terminal of the A/B switch.



5 Connect the last coaxial cable between the OUT terminal of the RF (A/B) switch and the ANT 1 IN(CABLE IN) on the PDP.



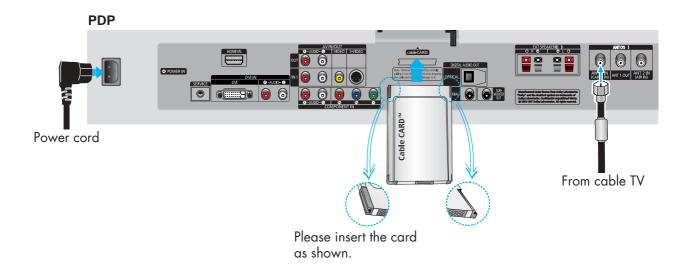
After you've made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels. (When you set the A/B switch to "B", you will need to tune your Set-Top Box to the Cable box's output channel, which is usually channel 3 or 4.)





Connecting CableCARD

You must obtain a CableCARD from a local cable service provider.



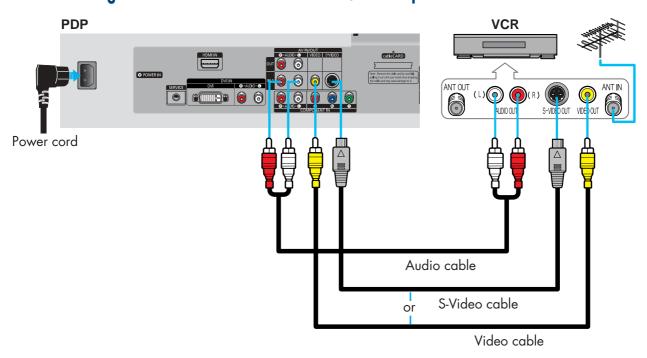
How to Connect

- Insert the CableCARD into the "CableCARD" slot and the message "CableCARD Inserted" is displayed on the screen. If the channel information does not exist, the message "Updating Channel List" is displayed during channel information configuration. It could take several minutes to update the channel information depending on your cable service provider.
- The pairing information containing a telephone number, CableCARD ID, Host ID, and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- **3** When the channel information configuration has finished, the message "Updating Completed" is displayed, indicating that the channel list is now updated.
- ↑ The Channel list can now be displayed by pressing CH.LIST button.

Notes

- Once the channel list has been updated, only the channels on the channel list can be selected.
- Remove the cable card by carefully pulling it out with your hands since dropping the cable card may cause damage to it.

Connecting a VCR to the Video or S-Video/Audio jack



How to Connect

Connect the Video/Audio cables between the VIDEO or S-VIDEO / L - AUDIO - R jacks on the PDP and VIDEO or S-VIDEO / L - AUDIO - R output jacks on the VCR. (Note: For better video, use an S-Video cable.)

Note

• Please be sure to match the color coded input terminals and cable jacks.

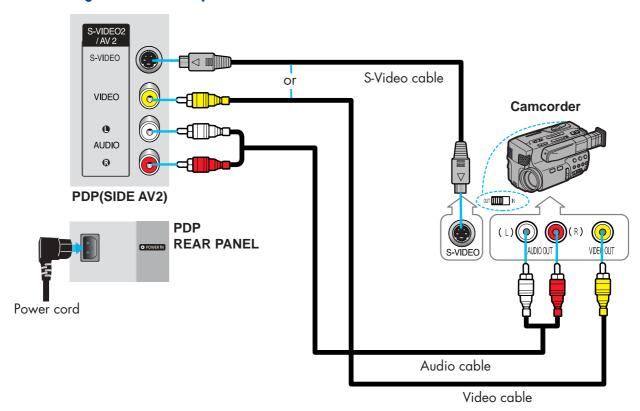
Videotape Playback:

- 1. Turn on your PDP.
- 2. Press the SOURCE button to select "Video(AV1 or AV2)" or "S-Video(S-VIDEO1 or S-VIDEO2)".
- 3. Turn on your VCR, insert a videotape and press the Play button.



Connecting a Camcorder

Viewing camcorder tapes



How to Connect

Connect a Video/Audio cable between the VIDEO or S-VIDEO / L - AUDIO - R jacks on the PDP and the VIDEO or S-VIDEO /AUDIO output jacks on the camcorder. (Note: For better video, use an S-VIDEO cable.)

Note

• Please be sure to match the color coded input terminals and cable jacks.

Viewing Tapes

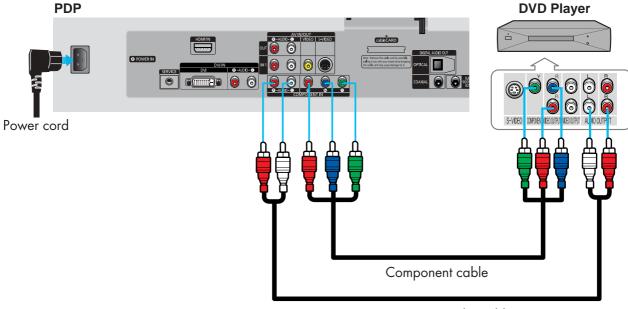
- 1. Turn on your PDP.
- Press the SOURCE button to select "Video(AV1 or AV2)" or "S-VIDEO(S-VIDEO1 or S-VIDEO2)".
- 3. Turn on your camcorder and set it to video mode. (For details, refer to your camcorder owner's instructions.)
- 4. Set the IN/OUT switch on your camcorder to OUT.
- 5. Insert the tape into the camcorder and press the Play button.



Connecting a DVD Player (480i, 480p)

This PDP displays the optimum picture in 720p mode.

Playing DVD



Audio cable

How to Connect

- Connect the Y, PB, PR (COMPONENT) input jacks on the PDP with Y, PB, PR output jacks on the DVD player using a component cable.
- 2 Connect the AUDIO L/R(COMPONENT) input jacks on the PDP with the AUDIO output jacks on the DVD player using a audio cable.

Note

• Please be sure to match the color coded input terminals and cable jacks.

To Play DVD:

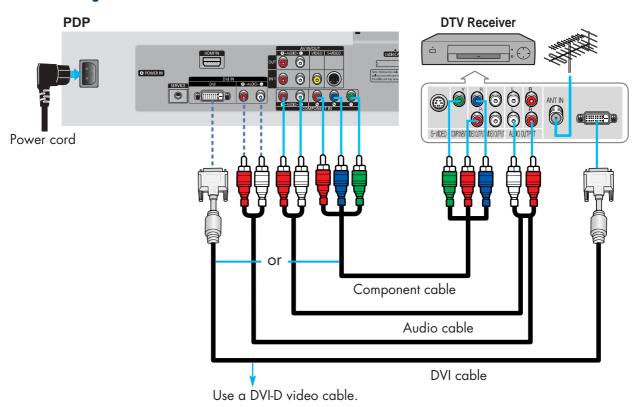
- 1. Turn on your PDP.
- 2. Press the SOURCE button to select "COMPONENT".
- 3. Turn on your DVD player, insert a DVD disc and press the Play button.
 - For an explanation of component video, see your DVD owner's instructions.



Connecting a DTV Receiver (480p, 720p, 1080i)

This PDP displays the optimum picture in 720p mode.

Watching DTV



How to Connect

- 1 Connect the cable or antenna to the antenna input jack on the DTV.
- 2 Connect the Y, PB, PR (COMPONENT) or DVI input jacks on the PDP to the Y, PB, PR or DVI output jacks on the DTV receiver using a component or DVI-D cable.
- 3 Connect the AUDIO L/R(COMPONENT or DVI) input jacks on the PDP with the AUDIO output jacks on the DTV receiver using an audio cable.

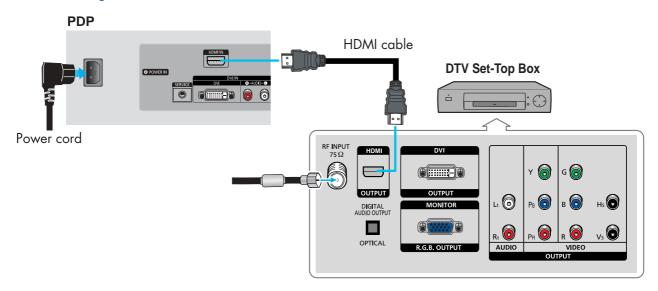
Notes

- Please be sure to match the color coded input terminals and cable jacks.
- The DVI IN jack is not compatible with PC.

To Watch DTV:

- 1. Turn on your PDP.
- 2. Press the SOURCE button to select "COMPONENT" or "DVI".
- 3. Turn on your DTV receiver.
 - For an explanation of component video, see your DTV receiver owner's instructions.

Watching DTV



How to Connect

- Connect the cable or antenna to the antenna input jack on the DTV.
- 2 Connect the HDMI IN jack on the TV with the HDMI OUT jack on the DTV Set-Top Box using a HDMI cable.

Notes

- Please make sure the HDMI source's power is on before selecting HDMI from the "Source List".
- The HDMI IN jack is not compatible with PC.
- Sound is not available when HDMI is connected using a combination DVD/HDMI cable.

To Watch DTV:

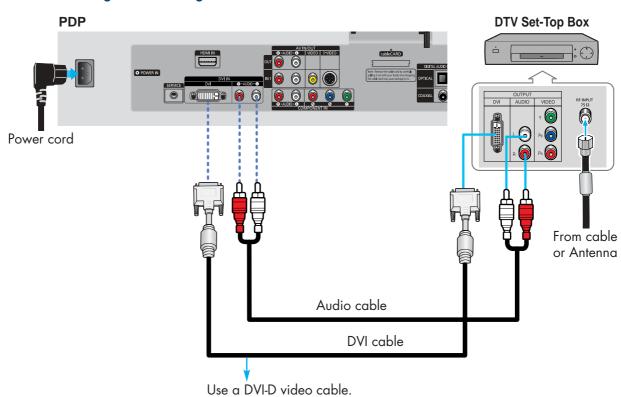
- 1. Turn on your PDP.
- 2. Press the SOURCE button to select "HDMI".
- 3. Turn on your DTV receiver.
 - For an explanation of HDMI video, see your DTV receiver owner's instructions.



Connecting a Digital TV Set-Top Box (480p, 720p, 1080i)

By inputting a high-bandwidth digital content protection High-Definition picture source to the DVI IN jack on the TV, High-Definition pictures can be displayed on the screen in their digital form.

Connecting to DVI (Digital Visual Interface)



How to Connect

- Connect the DVI AUDIO (L, R) jacks on the TV with the AUDIO OUT jacks on the Set-Top Box using a audio cable.
- 2 Connect the DVI IN jack on the TV and the VIDEO OUT jack on the Set-Top Box using a DVI-D video cable.

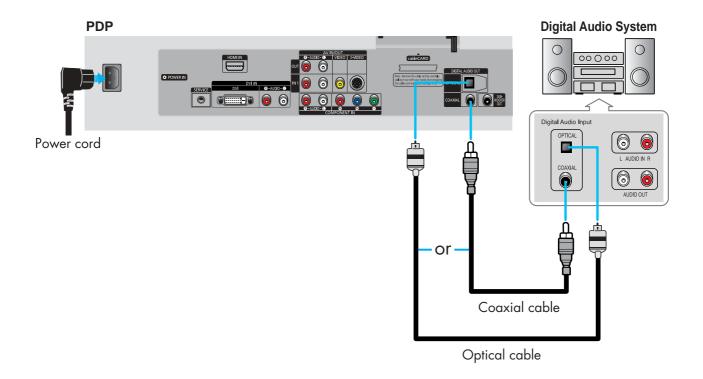
Notes

- The DVI IN jack is not compatible with PC.
- Use a DVI 25-pin cable (commercially available) in order to digitally connect the TV with a DTV Set-Top Box.



Connecting a Digital Audio System

There are many types of digital audio systems on the market today. A simplified illustration of an audio system is shown below. For more information, see your audio system owner's manual.

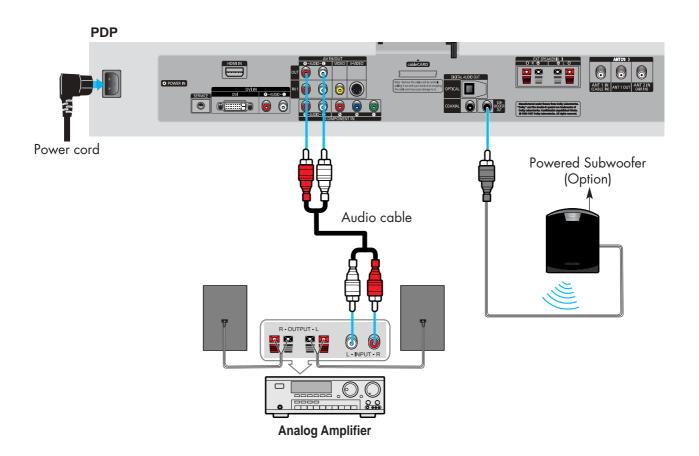


How to Connect

- If your audio system has a coaxial digital audio input, connect to the "COAXIAL" output jack on the PDP.
- **1** If your audio system has a optical digital audio input, connect to the "OPTICAL" output jack on the PDP.
 - Be certain to remove the black cover from the optical output before inserting the cable.
- **3** If your system has both coaxial and optical digital audio inputs, SAMSUNG recommends you use the optical digital output on the PDP.
 - Do not connect both optical and coaxial cables. This may damage your audio system.
 - OPTICAL: converts the electric signal into an optical light signal, and transmits it through glass fibers.
 - COAXIAL: The digital audio signal is received through a coaxial copper cable.



Connecting to an Analog Amplifier/ Sub woofer Speaker



How to Connect

The "AUDIO OUT" terminals cannot be used for external speakers. You must hook them up to an amplifier.

When an audio amplifier is connected to the "AUDIO OUT" terminals: Decrease the gain (volume) of the audio amplifier, and adjust the volume level with the volume control on the PDP.



Operation



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Turning the PDP On and Off

Turning the PDP On and Off

Press the POWER button on the remote control. The PDP will be turned on and you will be able to use its features. You can also use the POWER (I/U) button on the front of the PDP.

Note

 If your PDP isn't turned on when the POWER button is pressed: Press the MODE button to check if the TV mode has been chosen (TU ?).



Plug & Play Feature

When the PDP is initially powered On, basic customer settings proceed automatically and subsequently: Setting the language, checking the antenna input, memorizing the channels, and setting the time.

Note

- The Plug & Play function operates after plugging in the PDP for the first time.
- Press the POWER button on the remote control.
 The message "Menu language, channels and time will be set." is displayed.
 Press the ENTER button, then "Select the language of OSD" menu is automatically displayed.



Press the ENTER button to enter the language.

Press the ▲ or ▼ button to select language, then the ENTER button. "Select the antennas to memorize." menu is automatically displayed.



Press the ▲ or ▼ button to memorize the channels of the selected connection.

Press the ENTER button to select "Start".

Notes

- If the antenna is connected to ANT 1 (CABLE IN), select "CABLE" and if it is connected to ANT 2(AIR IN), select "AIR".
- If both ANT 1 and ANT 2 are connected, select the "Air + Cable".
- If the CableCARD is inserted into the "CableCARD" slot on the rear panel, "Cable" and "Air+Cable" are not available.

When selecting Cable TV:

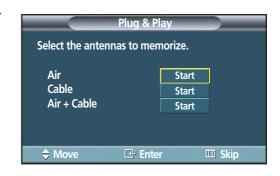
Press the ▲ or ▼ button to select "Cable", then press the ENTER button.

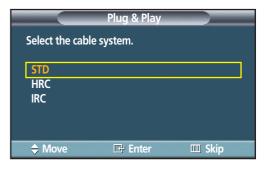
Press the ▲ or ▼ button to select "STD", "HRC", or "IRC", then press the ENTER button.

The TV will begin memorizing all of the available channels. After all the available channels are stored, the Auto program menu reappears.

Press the ENTER button when channel memorization is complete.

"Set to daylight savings time." menu is automatically displayed.









Plug & Play

Set to daylight savings time.

Daylight Savings Time : No
Yes

Move : Enter : Skip

Press the ENTER button. Press the ▲ or ▼ button to select "Yes" or "No", then the ENTER button. "Select your time zone in which you live" menu is automatically displayed.

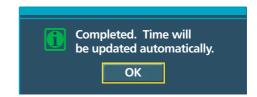
Press the ▲ or ▼ button to highlight the time zone for your local area (and to move the highlight to the appropriate time zone on the map of the United States).

Press the ENTER button.

If you have received a digital signal, the time will be set automatically. If not, see page 92 to set the clock.

The message "Completed. Time will be updated automatically." is displayed.
When you have finished, press the ENTER button.





If you want to reset this feature...

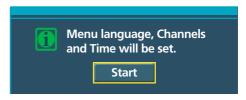
Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Plug & Play".
Press the ENTER button.



For further details on setting up options, refer to the previous page.



Note

• Plug and Play can only be accessed in the TV mode.



Viewing the Menus and Displays

Your PDP has a simple, easy-to-use menu system that appears on the PDP screen. This system makes it convenient and fast to use features on the PDP. Your PDP also lets you display the status of many of your PDP's features.

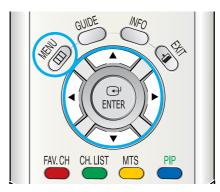
Viewing the Menus

With the power on, press the MENU button on the remote control. The main menu appears on the screen. The Input menu is selected.



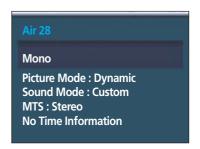
Press the ▲ or ▼ button to move to items in the menu. Press the ◀/►/ENTER buttons to display, change, or use the selected items.

Press the ENTER () button to enter items in the menu. On screen menus disappear from the screen automatically after about two minutes or you can press the MENU or EXIT button on your remote control to exit the menu.



Displaying Status Information

Press the INFO button on the remote control. The PDP will display the Picture mode, Sound mode, MTS, and Current Time.





Memorizing the Channels

Your TV can memorize and store all of the available channels for both "off-air" (antenna) and cable channels. After the available channels are memorized, use the CH \odot and CH \odot buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

Selecting a broadcast source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

Press the MENU button. Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ▲ or ▼ button to select "Auto Program", then press the ENTER button.



Input

Picture

Sound

Setup Guide Cable

Air + Cable

Press the ▲ or ▼ button to select the antenna connection, then press the ENTER button.

Notes

- Air : "Air" antenna signal.
- Cable: "Cable" antenna signal.
- Air+Cable: "Air" and "Cable" antenna signals.

If the CableCARD is inserted into the "CableCARD" slot on the rear panel, "Cable" and "Air+Cable" are not available.

When selecting Cable TV system:

Press the ▲ or ▼ button to select "Cable", then press the ENTER button.

Press the ▲ or ▼ button to select "STD", "HRC", or "IRC", then press the ENTER button.

Select the antennas to memorize Sound Air Cable Air + Cable Start Air + Cable Start Guide Move Finter Return

Auto Program

☐ Enter

Auto Program

Start

Start

■ Return

Select the antennas to memorize

Note

 STD, HRC, and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point the signal source has been selected. Proceed to "Storing Channels in Memory".



Storing Channels in Memory

4

Press the ▲ or ▼ button to select the antennas to memorize. Press the ENTER button to select "Start".



Press the ENTER button to start the auto program. The TV begins memorizing all available stations. Press the ENTER button at any time to interrupt the memorization process.

Press the EXIT button to exit.

Note

 The TV must be connected to an antenna in order to receive digital TV signals.
 Even if a particular channel is deleted from the memory, you can always tune to that channel directly by using the number buttons on the remote control.



<u>Notes</u>

- All available DTV and analog channels are automatically stored in memory when channels are selected by directly accessing channels.
- It takes approximately 3 to 10 minutes to memorize channels.



Adding and Erasing Channels

To add channels that were not memorized (or to delete unwanted channels from memory).

Press the MENU button.

Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



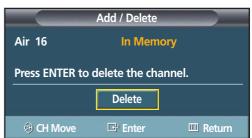
Press the ▲ or ▼ button to select "Add/Delete", then press the ENTER button.



Repeatedly pressing the ENTER button will alternate between add channel and delete channel.

Press the CH \bigcirc or CH \bigcirc button to switch to the appropriate channel, then repeat above. Press the EXIT button to exit.





Changing Channels

Using the Channel Buttons

Press the CH or CH button to change channels.

When you press the CH or CH button, the PDP changes channels in sequence. You will see all the channels that the PDP has memorized. (The PDP must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

Directly Accessing Channels

Press the number buttons to go directly to a channel. For example, to select channel 27, press "2" then "7".

When you use the number buttons, you can directly select channels that were either erased or not memorized. To change to single-digit channels (0~9) faster, press "0" before the single digit. (For channel "4" press "0", then "4".)

Notes

- For quick channel change, press the number buttons and then press 'ENTER'.
- After the process of updating the channel information using cable card has been completed, only the number of channels on the channel list can be directly accessed.

Using the PRE-CH button to select the previous channel

Press the PRE-CH button. The TV will switch to the last channel viewed.

To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then, use the PRE-CH button to quickly alternate between them.

Adjusting the Volume

Using the Volume Buttons

Press the VOL @ or VOL @ button to increase or decrease the volume.

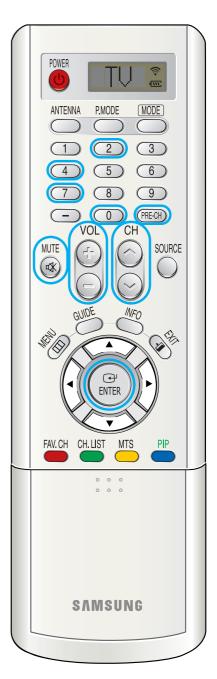
Using Mute

Using the MUTE Button

At any time, you can temporarily cut off the sound using the MUTE button.

Press the MUTE button and the sound cuts off. The word "Mute" will appear in the lower-left corner of the screen.







Using the "—" Button

The "-" button is used to select stations that broadcast both a digital and analog signal.

For example, for Channel 7-1 (digital), press "7", then "-", then "1".



For channel 7-2 (analog), press "7", then "-", then "2".



- HD indicates the TV is receiving a Digital High Definition signal. SD indicates the TV is receiving a Standard Definition signal.
- For quick channel change, press the number buttons and then press 'ENTER'.



Setting Up Your Remote Control

This PDP's remote control can operate almost any VCR, Cable box or DVD. After it has been set up properly, your remote control can operate in five different modes: TV, VCR, CATV, DVD, or STB. Pressing the corresponding button on the remote control allows you to switch between these modes, and control whichever piece of equipment you choose.

Notes: • The remote control may not be compatible with all DVD Players, VCRs, or Cable boxes.

• The remote control can only operate Set-Top Boxes made by Samsung.

Setting Up the Remote to Operate Your VCR, Cable box or DVD player

1 Turn off your VCR (or Cable box, DVD player).

Press the MODE button. The Mode is changed whenever MODE button is pressed.

? Press the SET button on your TV's remote control.

Using the number buttons on your remote control, enter three digits of the VCR (or Cable box, DVD player) code listed on page 47 of this manual for your brand of VCR (or Cable box, DVD). Make sure you enter three digits of the code, even if the first digit is a "0".

(If more than one code is listed, try the first one.)

Press the POWER button on the remote control.
Your VCR (or Cable box, DVD) should turn on if your remote is set up correctly. If your VCR (or Cable box, DVD) does not turn on after setup, repeat steps 2, 3, and 4, but try one of the other codes listed for your brand of VCR (or Cable box, DVD). If no other codes are listed, try each code, 000 through 089 (or Cable box: 000 through 077, DVD player: 000 through 008).



- When your remote control is in "VCR", "CATV", or "DVD" mode, the VCR control buttons (STOP, REW, PLAY/PAUSE, and FF) still operate your VCR.
- You do not need to program the remote for Samsung STBs as the codes are pre-programmed.

Remote Control Codes

VCR Codes

Brand Codes	Brand	Codes	Brand	Codes
Admiral 020	JVC 007 00	8 018 021 026 037	RCA	
Aiwa 025	Kenwood 00	7 008 018 026 037	017 019 002	2 021 035 041 043 057 068
Akai 027 004 032	KLH	070	Samsung	000 001 002 003 004 005
Audio Dynamics 007 026	Lioyd	025	Sansui	026
Bell&Howell 018	Logik	038	Sanyo	018 024
Broksonic 022	LXI	025	Scott	003 047 052 067
Candle 002 006 003 015 008 055	Magnavox	021 036 056 059	Sears 018	3 019 006 024 028 029 041
Canon 021 056	Marantz 008 00	7 018 021 026 036		048 051
Citizen 002 003 006 008 015 055		037 062	Sharp	020 034 045 015
Colortyme 007	Marta	006	Shimom	027 033 038 058
Craig 002 024	MEI	021	Signature	025
Curtis Mathes 002 017 007 008	Memorex	006 021 024 025	Sony	027 033 044
021 025 056 064 066	MGA	034	Sylvania	021 025 036 056 059
Daewoo 003 015 010 011 012 013	Midland	005	Symphonic	
014 016	Minolta	019 041	Tandy	018 025
DBX 007 026	Mitsubishi	019 034 041 046	Tashika	006
Dimensia 017	Montgomery War	d 020	Tatung	037
Dynatech 034	MTC	002 025	Teac	025 037 068
Emerson 001 003 006 021 022 025	Multitech	002 025 038 005	Technics	021
030 032 034 040 047 050		6 037 008 062 064	Teknika	021 006 025 031
052 060 063 065 066 067	Optimus	020	TMK	066
069	Panasonic	021 056 071 072	Toshiba	003 019 029 051 052
Fisher 018 024 028 029 048 051 061	Pentax	019 041	Totevision	002 006
Funai 025	Pentex Research	008	Unitech	002
General Electric 017 002 021	Philco	021 036 056 059	VectorRese	
005 056	Philips	021 036	Victor	026
Go Video 002	Pioneer	019 026 039 053	Video Con	
LG(Goldstar) 006 007 008 009 010	Portland	015 049 055	Videosonic	
Harman Kardon 007	PROSCAN	017	Wards	002 003 006 019 020 021
Hitachi 019 025 041 042	Quartz	018		024 025 034 038 041
InstantReplay 021	Quasar	021 056	Yamaha	007 008 018 026 037
JC Penny 002 007 018 019 021	Radio Shack/Real		Zenith	023 027 033 073
026 037 041 054 056	006 018 020 021 024	025 029 034 048 056		

Cable Box Codes

Brand	Codes	Brand		Codes	Brand	Codes
Anvision	017 018	Philips	019 0	21 023 028	Sprucer	022
GI	041	Pioneer	018 0	20 004 044	Stargate 2000	036
Hamlin	003 024 031	RCA	0.	14 022 040	Sylvania	016
Hitachi	025 030	Regal		003	Texscan	016
Jerrold	038 039	Regency		015 023	Tocom	032
Macom	025 030	SA		042 043	Universal	033 034
Magnavox	019 023 028	Samsung	000 001 002 0	03 004 005	Viewstar	019 021 023 028
Oak	026			006 007	Wamer amex	046
Panasonic	003 022 027 037 044	Scientific A	Atlanta	042 043	Zenith	017 029 035 037 045

DVD Codes

Brand	Codes
Samsung	000 001
JVC	002
PROSCAN	003
RCA	003
LG(Goldstar)	006
Sony	007
Denon	008
Curtis Mathes	009

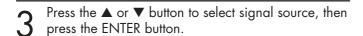


Viewing an External Signal Source

Use the remote control to switch between viewing signals from connected equipment, such as VCR, DVD, Set-Top Box and the TV source (broadcast or cable).

Setting the Signal Source

- Press the MENU button. Press the ENTER button to select "Input".
 - Quick way to access viewing an external signal source : Just press the "SOURCE" button on the remote control.
- Press the ENTER button to select "Source List".









4

Press the MENU button to exit.

- When you connect equipment to the PDP, you can choose between the following sets of jacks: AV1, AV2, S-Video1, S-Video2, Component, DVI, or HDMI on the PDP's rear panel.
- HDMI input can only be selected when the external device is turned on and connected via HDMI.

Assigning Names to External input mode

Press the MENU button. Press the ENTER button to select "Input".



Press the ▲ or ▼ button to select "Edit Name", then press the ENTER button.



- Press the ENTER button.

 Press the ▲ or ▼ button to select external device, then press the ENTER button.
 - You can select the VCR, DVD, D-VHS, Cable STB, HD STB, Satellite STB, PVR STB, AV Receiver, DVD Receiver, GAME, Camcorder, Combo, PC, VOD STB, or TV.
 - Set other signal sources (AV2, S-Video1, S-Video2, Component, DVI, or HDMI) using the same method as listed above.



4



Picture Control



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Customizing the Picture

You can use the on-screen menus to change the Contrast, Brightness, Sharpness, Color, and Tint settings of your PDP.

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "Custom", then press the ENTER button.
You will also see the items "Contrast", "Brightness",

"Sharpness", "Color", and "Tint".



Press the ▲ or ▼ button to select the item you wish to change, then press the ENTER button.

Press the ◀ or ▶ button to change the value of the item.



4

Press the MENU button to exit.

- In the Component(480p, 720p, 1080i), DVI, HDMI mode, you can't adjust the Tint.
- If you make any changes to these settings, the picture mode is automatically switched to custom.
- Each adjusted setting will be stored separately according to its input mode.
- When you make changes to Contrast, Brightness, Color, Tint, OSD color will also be adjusted accordingly.



Plasma Display Using Automatic Picture Settings

Your PDP has automatic picture settings that allow you to adjust the video display easily.

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.

Quick way to access the picture setting: Just press the "P.MODE" button on the remote control.



Press the ENTER button to select "Mode".



Press the ▲ or ▼ button to select "Dynamic", "Standard", "Movie", "Custom" picture setting, then press the ENTER button.



Press the MENU button to exit.

- Choose Dynamic for viewing the TV during the day or when there is bright light in the room.
- Choose Standard for the standard factory settings.
- Choose Movie when viewing the movie.
- Choose Custom if you want to adjust the settings according to personal preference (see "Customizing the Picture", page 52).

Note

Each adjusted value of Picture mode will be stored separately according to its input mode.



Selecting the Color Tone

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "Color Tone", then press the ENTER button.



Press the ▲ or ▼ button to select "Cool2", "Cool1", "Normal", "Warm1", or "Warm2", then press the ENTER button.





DNIe (Digital Natural Image engine)

Samsung's new technology brings you more detailed images with contrast, white enhancement and 3D noise reduction.

- Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.
 - Quick way to select DNIe: Simply press the "DNIe" button under the cover of the remote control.
- Press the ▲ or ▼ button to select "DNIe", then press the ENTER button.





- Press the ▲ or ▼ button to select "Off", "Demo", or "On", then press the ENTER button.
 - Off: Switches off the DNIe mode.
 - Demo: The screen before applying DNIe appears on the right and the screen after applying DNIe appears on the left.
 - On: Switches on the DNIe mode.



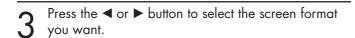
4

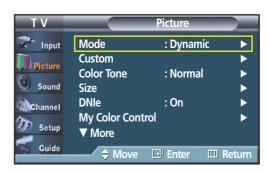


Changing the Screen Size

Screen size selection depends on the type of video input.

- Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.
 - Quick way to change the Screen size: Simply press the ASPECT button under the cover of the remote control.
- Press the ▲ or ▼ button to select "Size", then press the ENTER button.









4

- 16:9 : Sets the picture to 16:9 wide mode.
- Panorama : Use this mode for the wide aspect ratio of a panoramic picture.
- Zoom1 : Magnifies the size of the picture on the screen.
- Zoom2 : Expands the Zoom1 format picture.4:3 : Sets the picture to 4:3 normal mode.

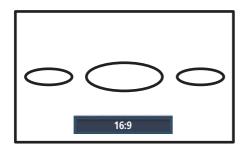
When you press the ASPECT button under the cover of the remote control, the PDP's screen mode should appear in sequence. The screen displays in this order: 16:9, Panorama, Zoom1, Zoom2, 4:3.

Note

• If you watch a still image or the 4:3 mode for a long time (over 2 hours), an image may be burned onto the screen. View the TV in 16:9 or Panorama mode as much as possible.

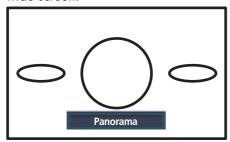
16:9

Sets the picture to 16:9 wide mode.



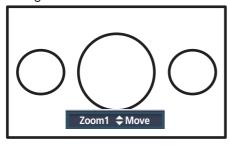
Panorama

Converts regular 4:3 aspect ratio screen to wide screen.



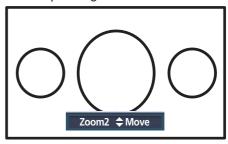
Zoom 1

The screen size when Wide screen is vertically enlarged.



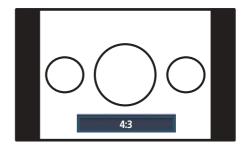
Zoom2

The screen size when the Zoom1 screen is vertically enlarged.



4:3

Sets the picture to 4:3 normal mode.



- In TV, VIDEO, S-VIDEO, and all COMPONENT modes, all screen modes can be selected.
 (16:9 → Panorama → Zoom1 → Zoom2 → 4:3).
- In TV(DTV), DVI, HDMI modes, only 16:9 & 4:3 modes can be selected.
- In Zoom1, Zoom2 modes, you can move the picture on screen by pressing the ▲ or ▼ button.
 (All screen modes)
- Picture size will not change when PIP size is Double.



Still

Press the STILL button on the remote control to freeze a moving picture. Press again to cancel.



- The still picture will automatically be released after 3 minutes to prevent screen burn.
- If you press a remocon button in Still mode, the still picture will be cleared.



Viewing the Picture-in-Picture

Selecting the PIP Screen

- Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.
 - Quick way to access the PIP mode: Just press the "PIP" button on the remote control.
- Press the ▲ or ▼ button to select "PIP", then press the ENTER button.
- Press the ENTER button, then press the ▲ or ▼ button to select "On". The PIP image will appear in the corner of the screen.
 - Pressing the ▲ or ▼ button will alternate between "On" and "Off".

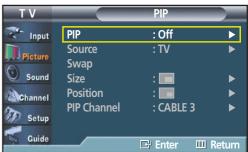
Note

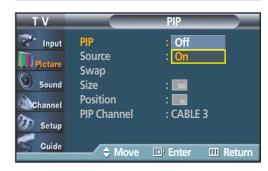
PIP Settings

 Check if the V-Chip Lock (refer to page 109) is ON if the PIP On/Off will not function. PIP does not function when the V-Chip Lock is set to On. Change the setting to Off and try it again.









- O: PIP and swap operate
- ▲ : PIP operate and swap doesn't operate
- X: PIP doesn't operate

	Main screen		TV								
PI	P screen	ATSC/ Cable DTV	Air (NTSC)	Cable (NTSC)	AV1	AV2	S-Video1	S-Video2	Component	DVI	HDMI
TV	ATSC/ Cable DTV	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
11	Air(NTSC)	Х	Х	Х	Χ	Χ	Х	Х	Х	Х	Х
	Cable(NTSC)	A	A	0	0	0	0	0	A	A	A
	AV1	A	A	0	Χ	0	0	0	A	A	A
	AV2	A	A	0	0	Χ	0	0	A	A	A
	S-Video1	A	A	0	0	0	Х	0	A	A	A
	S-Video2	A	A	0	0	0	0	Χ	A	A	A
	Component	Χ	Х	Х	Χ	Χ	Х	Х	Χ	Х	Х
	DVI	Х	Х	Х	Χ	Χ	Х	Х	Χ	Х	Х
	HDMI	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	χ	χ

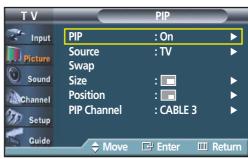
Selecting an External Signal

You can use PIP to view a signal from an external source, such as a VCR.

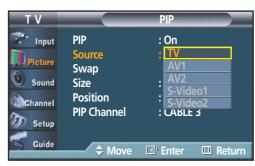
Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "PIP", then press the ENTER button.



Press the ▲ or ▼ button to select "Source", then press the ENTER button.



Press the ▲ or ▼ button to cycle through all of the available signal sources: "TV", "AV1", "AV2", "S-Video1", or "S-Video2".

The signal from these inputs will not appear if you have not connected any equipment to the PDP's respective input jacks.

5 Press the MENU button to exit.

- The same Source can not be selected on both the main screen and subscreen.
- TV(DTV), COMPONENT, DVI, HDMI are not available in PIP picture.

Swapping the Contents of the PIP and Main Image

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "PIP", then press the ENTER button.



- Press the ▲ or ▼ button to select "Swap", then press the ENTER button.
 - The image in the PIP window will appear on the main screen, and vice versa.

Note

 If main picture is in TV(DTV), COMPONENT, DVI, or HDMI mode, Swap is not available.



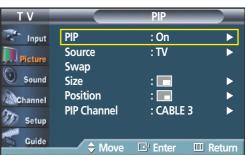
4

Changing the Size of the PIP Window

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "PIP", then press the ENTER button.



Press the ▲ or ▼ button to select "Size", then press the ENTER button.



Press the ▲ or ▼ button to select option you want, then press the ENTER button.

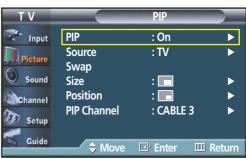


Changing the Location of the PIP Image

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "PIP", then press the ENTER button.



Press the \triangle or ∇ button to select "Position", then press the ENTER button.



Press the ▲ or ▼ button to select the PIP position you want, then press the ENTER button.



Press the MENU button to exit.

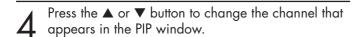
<u>Note</u>

• The Double() mode cannot be selected in position.

Changing the PIP Channel

- Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.
- Press the ▲ or ▼ button to select "PIP", then press the ENTER button.













Press the MENU button to exit.

- When PIP screen size is Double, the same channel cannot be selected for both main and sub screens.
- Only Analog cable channels signal inputs can be viewed through PIP.



Setting the My Color Control Mode

My Color Control mode allows users to adjust colors according to thier preferences, by adjusting skin, sky, and grass tones using the predefined settings (Standard, Custom, Blue, Green, Pink) without affecting other colors on the screen.

Using the My Color Control Function in the Easy Control Menu

Skin, sky and grass tones are easily adjustable to suit your preferences.

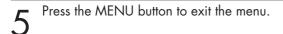
Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "My Color Control", then press the ENTER button.



- Press the ▲ or ▼ button to select "Easy Control", then press the ENTER button.
- Press the ◀ or ▶ button to select the setting among the various picture settings. The original picture (before adjustment) is shown on the left side, while the selected mode is shown on the right side.
 - There are five My Color Control modes: Standard, Custom, Blue, Green, and Pink.



<u>Note</u>

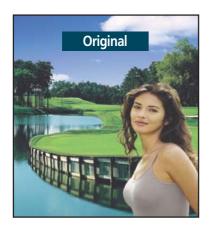
 This feature is operated when the "DNIe" is set to "On" or "Demo" mode.



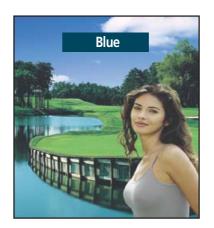


My Color Control Mode Characteristics

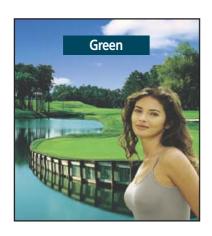
Using My Color Control mode, you can enjoy vivid colors as shown below.



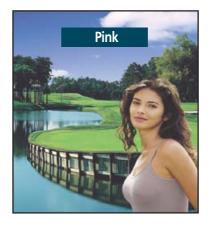
> Standard Picture.



Emphasizes Clear Blues.



> Emphasizes Mild Greens.



Emphasizes Warm Skin Colors.

<u>Note</u>

• Images shown above may differ from the actual adjustment on the screen. These images are presented for illustrative purposes.



Setting the My Color Control Mode

My Color Control Custom Settings

Users can adjust the 3 My Color Control colors (Pink, Green and Blue).

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



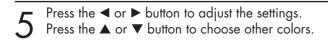
Press the ▲ or ▼ button to select "My Color Control", then press the ENTER button.

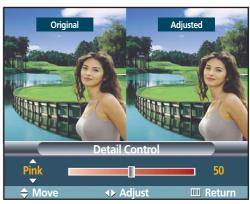


Press the ▲ or ▼ button to select "Detail Control", then press the ENTER button.



- Press the ▲ or ▼ button to select the desired color and then press the ENTER or ▶ button.
 - The original picture (before adjustment) is shown on the left side, while the picture after adjustment is shown on the right side, and an adjustment bar on the bottom of the screen.





Press the ENTER or MENU button to confirm the changes and return to the previous menu.

Resetting the My Color Control Colors to the Factory Defaults

To return to the factory default settings for My Color Control colors, use the Reset function.

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "My Color Control", then press the ENTER button.



Press the ▲ or ▼ button to select "Detail Control", then press the ENTER button.



Press the ▲ or ▼ button to select "Reset" and press the ENTER button.



The previously adjusted My Color Control Colors will be reset to the factory defaults. (The default value for My Color Control colors is 50.)



Press the MENU button to exit the menu.



Selecting the DVI Standard

This feature is for aligning the screen image center dislocated by differences between various DVI and HDMI signal sources.

The initial setting is "861B". If you experience a mis-aligned screen image OK when the "DVI and HDMI INPUT" jack on the rear of your TV is used for an external device, switch the setting to "SMPTE".

This feature only works when the external source is set to "DVI and HDMI". Refer to the "Viewing an External Signal Source" on the page 48 for further details.

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "DVI Signal", then press the ENTER button.

Press the ▲ or ▼ button to select "861B" or "SMPTE", then press the ENTER button.





Sound Control



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Using the Auto Volume	78
Choosing a Digital Sound Format	79
Setting up the Sub Woofer Output	80
Setting the On/Off Melody	81
Selecting the Internal Mute	82



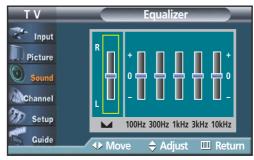
Customizing the Sound

The sound settings can be adjusted to suit your personal preferences. (Alternatively, you can use one of the "automatic" settings. See next page.)

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



Press the ▲ or ▼ button to select "Equalizer", then press the ENTER button.



Press the ◀ or ▶ button to select a particular frequency to adjust. Press the ▲ or ▼ button to increase or decrease the level of the particular frequency.

4

Press the MENU button to exit.

Note

 If you make any changes to the equalizer settings, the sound mode is automatically switched to the custom mode.



Using Automatic Sound Settings

Your TV has automatic sound settings ("Standard", "Music", "Movie", and "Speech") that are preset at the factory. Or, you can select "Custom," which automatically recalls your personalized sound settings.

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



? Press the ENTER button to select "Mode".



Press the ▲ or ▼ button to select "Standard", "Music", "Movie", "Speech", or "Custom" sound setting, then press the ENTER button.



4

- Choose Standard for the standard factory settings.
- Choose Music when watching music videos or concerts.
- Choose Movie when watching movies.
- Choose Speech when watching a show that is mostly dialog (i.e., news).
- Choose Custom to recall your personalized settings (see "Customizing the Sound", page 72).



Setting the TruSurround XT

TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. Trusurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

- Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.
 - Quick way to access the TruSurround XT menu: Just press the "SRS" button under the cover of the remote control.
- Press the ▲ or ▼ button to select "SRS TruSurround XT", then press the ENTER button.



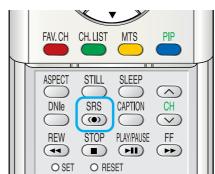


Press the ▲ or ▼ button to change the setting (Off, 3D Mono, or Stereo), then press the ENTER button.



- Press the MENU button to exit.
 - TruSurround XT, SRS and (Symbol are trademarks of SRS Labs, Inc.
 TruSurround XT technology is incorporated under license from SRS Labs, Inc.







Setting up DNSe (Digital Natural Sound engine)

What is the Speaker Equalizer?

The Speaker Equalizer improves the sound quality the speaker by compensating for the bandwidth of speakers.

What is DRC (Dynamic Range Control)?

The DRC modulates the high and low volume sound from the speakers. It is useful when watching TV late at night.

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



Press the ▲ or ▼ button to select "DNSe", then press the ENTER button.



Press the ▲ or ▼ button to select "Speaker Equalizer" or "DRC", then press the ENTER button.



Press the \blacktriangle or \blacktriangledown button to select "On", then press the ENTER button.

 Pressing the ▲ or ▼ button will alternate between "On" and "Off".



ress the MENU button to exit.

<u>Note</u>

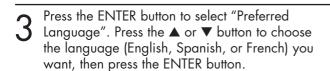
When using other speaker instead of the one included with the set, set the Speaker Equalizer off.



Choosing a Multi-Channel Sound (MTS) track - Digital

The digital-TV transmission system is capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages). The availability of these additional "multitracks" depends upon the program.

- Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.
 - Quick way to access the MTS menu: Just press the "MTS" button on the remote control. You can listen in a language other than the favorite language by pressing the MTS button.
- Press the ▲ or ▼ button to select "Multi-Track Options", then press the ENTER button.









Press

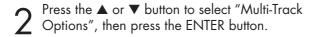


Choosing a Multi-Channel Sound (MTS) track - Analog

Depending on the particular program being broadcast, you can listen to Mono, Stereo or SAP.

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.

Quick way to access the MTS menu: Just press the "MTS" button on the remote control repeatedly to select one of the settings.







Press the ▲ or ▼ button to select "Multi-Track Sound", then press the ENTER button.

Press the ▲ or ▼ button to select a setting you want, then press the ENTER button.



4

- Choose "Mono" for channels that are broadcasting in mono, or if you are having difficulty receiving a stereo signal.
- Choose "Stereo" for channels that are broadcasting in stereo.
- Choose "SAP" to listen to the Separate Audio Program, which is usually a foreign-language translation.



Using the Auto Volume

Each broadcasting station has its own signal conditions, which can make it necessary to adjust the volume every time the channel is changed. "Auto Volume" lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



Press the ▲ or ▼ button to select "Auto Volume", then press the ENTER button.



- Press the ▲ or ▼ button to select "On", then press the ENTER button.
 - Pressing the ▲ or ▼ button will alternate between "On" and "Off".



A Pi



Choosing a Digital Sound Format

Digital sound can be output from the rear panel connector on your TV. The digital sound outputs are connectors labeled "Optical" and "Coaxial". After connecting a digital-audio component, you must specify the transmission format (Dolby or PCM, as appropriate to your digital audio component).

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



- Press the ▲ or ▼ button to select "Digital Output", then press the ENTER button.

 Press the ▲ or ▼ button to select "Dolby Digital" or "PCM", then press the ENTER button.
 - Manufactured under license from Dolby Laboratories. "Dolby" and the double D-symbol are trademarks of Dolby Laboratories.





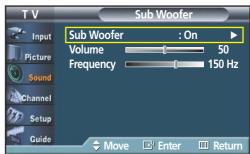
Setting up the Sub Woofer Output

After connecting a Sub Woofer Speaker (sold separately), you may set the activation, volume and cut-off frequency.

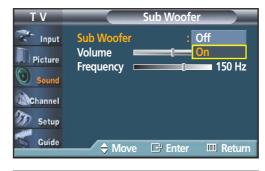
Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



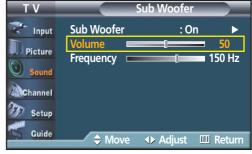
Press the ▲ or ▼ button to select "Sub Woofer", then press the ENTER button.



- Press the ▲ or ▼ button to select "On", then press the ENTER button.
 - Pressing the ▲ or ▼ button will alternate between "On" and "Off".



- Press the ▲ or ▼ button to select "Volume" or "Frequency", then press the ◀ or ▶ button to change the value of the item.
 - Volume : adjust the volume of the Sub Woofer.
 - Frequency: adjust the Frequency in units of 10 Hz.





Setting the On/Off Melody

A melody sound can be set to come on when the TV is powered On or Off.

Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



Press the ▲ or ▼ button to select "Melody", then press the ENTER button. Press the ▲ or ▼ button to select "On" or "Off", then press the ENTER button.





Selecting the Internal Mute

Sound output from the TV speakers is muted.

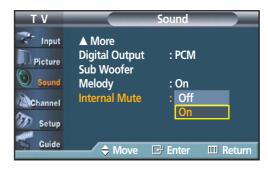
Press the MENU button. Press the ▲ or ▼ button to select "Sound", then press the ENTER button.



Press the ▲ or ▼ button to select "Internal Mute", then press the ENTER button.



- Press the ▲ or ▼ button to select "On", then press the ENTER button.
 - Pressing the ▲ or ▼ button will alternate between "On" and "Off".



4

Press the MENU button to exit.

Notes

- When Internal mute is set to 'On', Sound menus except Multi-track option cannot be adjusted.
- The monitor and digital audio outputs (Optical, Coaxial) remain enabled.



Channel Control CH



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Selecting the antenna

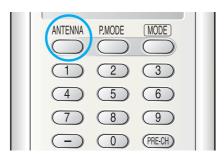
Press the MENU button. Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ENTER button to select "Antenna".

Press the ▲ or ▼ button to select "Air", or "Cable", then press the ENTER button.





Notes

 If the antenna is connected to ANT 1 (CABLE IN), select "CABLE" and if it is connected to ANT 2(AIR IN), select "AIR".





 If both ANT 1 and ANT 2 are connected, select the antenna input you want.
 If the antenna input is not selected properly, noise may appear on the screen.



CH

Plasma Display

Selecting Your Favorite Channels

You can store of your favorite channels for each available input source (such as TV and Cable box). Then, when you press the FAV.CH button on the remote control, the TV displays only the favorite channels you previously stored, allowing you to quickly and easily find frequently watched channels.

To Store Your Favorite Channels:

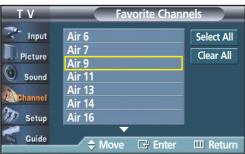
Press the MENU button.

Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ▲ or ▼ button to select "Favorite Channels", then press the ENTER button.

Press the ▲ or ▼ button to select a channel as a favorite channel, then press the ENTER button. Press the ENTER button again to deselect the selected channel.





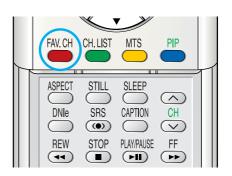
Press the MENU button to exit.

Notes

- Only memorized channels can be set as favorite channels.
- Select All: Press to select all channels.
 Clear All: Press to clear all channels.

To View Your Favorite Channels:

Press the FAV.CH button repeatedly to jump from one favorite channel to another.





Labeling the Channels

Use this feature to assign an easy-to-remember label to any channel (i.e., "CBS", "ESPN", "PBS2", "CNN1", etc.) A label consists of five fields, where each field is a letter, a number or a blank. When the INFO button is pressed, the channel label will appear next to the channel number.

Press the MENU button.

Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ▲ or ▼ button to select "Name", then press the ENTER button.

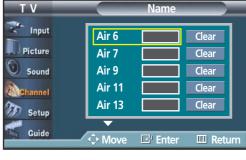
Press the ▲ or ▼ button to select the channel to be assigned to a new name, then press the ENTER button.

Press the ▲ or ▼ button to select a letter, a number or a blank (Results in this sequence: A...Z, O...9, +, -, *, /, blank).

Press the ▶ button to switch to the next field, which will be selected.

Select a second letter or digit by pressing the ▲ or ▼ button, as above.

Repeat the process to select the last two digits. When you have finished, press the ENTER button to assign the new name.





Press the MENU button to exit.

Notes

- The names of digital broadcasting channels are automatically assigned and thus cannot be assigned by users.
- When you use cable card to watch cable broadcasting, it might take some time for a channel name to be displayed due to data-receiving time.



Viewing the Channel Lists

You can display a list of all channels or your favorite channels.

Press the MENU button.

Press the ▲ or ▼ button to select "Channel", then press the ENTER button.

Quick way to view the Channel Lists: Just press the "CH.LIST" button on the remote control.

Press the ▲ or ▼ button to select "Channel List", then press the ENTER button.





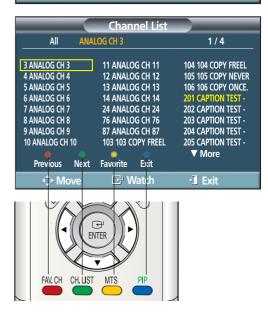
- Press the ▲ or ▼ button to select "All" or "Favorite", then press the ENTER button.
 To toggle between your favorite channels or all channels, use the yellow button on the remote control.
 - Red button: Press to display the previous channel list page.

Green button: Press to display the next channel list page.

Yellow button : Press to toggle between your

favorite channels or all channels.

Blue or EXIT button: Press to exit.



Alternate method:

Press the CH.LIST button on the remote control to display a list of channels.





Fine Tuning Analog Channels

Use fine tuning to manually adjust a particular channel for optimal reception.

Press the MENU button. Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ▲ or ▼ button to select "Fine Tune", then press the ENTER button.



 $oldsymbol{\gamma}$ Press the $ldsymbol{\blacktriangleleft}$ or $ldsymbol{\blacktriangleright}$ button to adjust the fine tuning.



To store the fine tuning setting in the TV's memory, press the ENTER button.

To reset the fine tuning setting, press the ▼ button to select "Reset", then press the ENTER button.



7 Press the MENU button to exit.



Notes

- Only analog TV channels can be fine tuned.
- "*" will appear next to the name of fine-tuned channels.



Checking the Digital-Signal Strength

Unlike analog channels, which can vary in reception quality from "snowy" to clear, digital (HDTV) channels have either perfect reception quality or you will not receive them at all. So, unlike analog channels, you cannot fine tune a digital channel. You can, however, adjust your antenna to improve the reception of available digital channels.

Press the MENU button.

Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ▲ or ▼ button to select "Signal Strength", then press the ENTER button.

If the signal strength meter indicates that the signal is weak, physically adjust your antenna to increase the signal strength.

Continue to adjust the antenna until you find the best position with the strongest signal.





LNA (Low Noise Amplifier)

If the TV is operating in a weak-signal area, sometimes the LNA function can improve the reception (a low-noise preamplifier boosts the incoming signal).

Press the MENU button. Press the ▲ or ▼ button to select "Channel", then press the ENTER button.



Press the ▲ or ▼ button to select "LNA", then press the ENTER button.



- Press the ▲ or ▼ button to select "On", then press the ENTER button.
 - Pressing the ▲ or ▼ button will alternate between "On" and "Off".



1

Press the MENU button to exit.

Note

• LNA functions only when antenna is set to AIR and the settings will be stored separately in each channel. (See "Selecting the antenna." on page 84.)



Time Setting



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Setting the On/Off Timer	95



Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV. (Just press the INFO button.)

Option 1: Setting the Clock Manually

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Time", then press the ENTER button.

Press the ENTER button to select "Clock".



Press the ENTER button to select "Clock Mode".

Press the ▲ or ▼ button to select "Manual", then press the ENTER button.



Press the ▲ or ▼ button to select "Clock Set", then press the ENTER button.



Press the ◀ or ▶ button to move to "Month", "Day", "Year", "Hour", "Minute", or "am/pm".

Set the clock you want by pressing the ▲ or ▼ button, then press the ENTER button.



A Press the MENU button to exit.

<u>Notes</u>

- The current time will appear every time you press the INFO button.
- You can set the hour and minute directly by pressing the number buttons on the remote control.

Option 2: Setting the Clock Automatically

The Clock can be set automatically if you are receiving a digital signal.

Press the MENU button.

Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Time", then press the ENTER button.

Press the ENTER button to select "Clock".

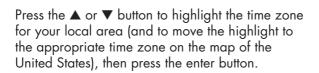


Press the ENTER button to select "Clock Mode".

Press the ▲ or ▼ button to select "Auto", then press the ENTER button.



Press the ▲ or ▼ button to select "Time Zone", then press the ENTER button.





Press the ▲ or ▼ button to select "DST" (Daylight Saving Time), then press the ENTER button.

Press the ▲ or ▼ button to select "Yes" or "No", then press the ENTER button.



Press the MENU button to exit.

Note

 Depending on the broadcast station and signal, the auto time may not be set correctly. If this occurs, set the time manually.

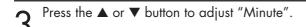


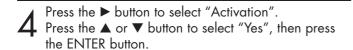
Setting the Sleep Timer

The sleep timer automatically shuts off the TV after a preset time (from 30 to 180 minutes).

- Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.
 - Quick way to access the sleep timer setting: Simply press the "SLEEP" button under the cover of the remote control.
- Press the ▲ or ▼ button to select "Time", then press the ENTER button.

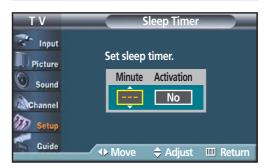
Press the \blacktriangle or \blacktriangledown button to select "Sleep Timer", then press the ENTER button.













- Input

Picture

Sound

Channel



Setting the On/Off Timer

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.

Press the ▲ or ▼ button to select "Time", then press the ENTER button.

Press the ▲ or ▼ button to select "On Timer", then press the ENTER button.

Press the ▲ or ▼ button to adjust "Hour", then press the button to move to the next step.

Set other items using the same method as above.

When finished, press the MENU button to return.

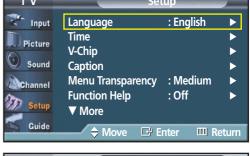
- The current time will appear every time you press the INFO button.
- You can set the hour and minute directly by pressing the number buttons on the remote control.
- Press the ▲ or ▼ button to select "Off Timer", then press the ENTER button.

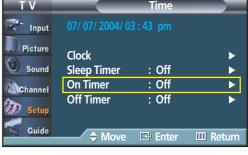
Press the ▲ or ▼ button to adjust "Hour", then press the button to move to the next step.

Set other items using the same method as above.

When finished, press the ENTER button.







Set on timer.

Channel

On Timer

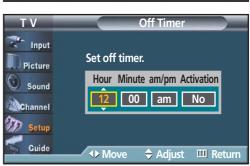
10

Volume Activation

No

Hour Minute am/pm Antenna

12 00 am Air





Function Description Selecting a March



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Selecting a Menu Language

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



? Press the ENTER button to select "Language".



Press the ▲ or ▼ button to select the appropriate language: "English", "Spanish", or "French". Press the ENTER button.





Selecting the Film Mode

On: Automatically senses and processes film signals from all sources and adjusts the picture for optimum quality.

Off: Switches off the Film mode.

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "Film Mode", then press the ENTER button.



Press the ▲ or ▼ button to select "On" or "Off", then press the ENTER button.



Press the MENU button to exit.

Note

• Film mode is supported in TV, VIDEO, S-VIDEO and COMPONENT 480i.



Digital Noise Reduction

If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.

Press the MENU button. Press the ▲ or ▼ button to select "Picture", then press the ENTER button.



Press the ▲ or ▼ button to select "Digital NR", then press the ENTER button.



Press the ▲ or ▼ button to select "On" or "Off", then press the ENTER button.





Using the Color Weakness Enhancement Option

This option adjusts the Red, Blue or Green color to enhance the image according to the user's particular color weakness.

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



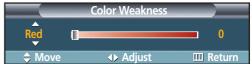
Press the ▲ or ▼ button to select "Color Weakness", then press the ENTER button.



- Press the ENTER button. Press the ▲ or ▼ button to select "On", then press the ENTER button. You will also see the items "Red", "Green", and "Blue".
 - Pressing the ▲ or ▼ button will alternate between "On" and "Off".
- Press the ▲ or ▼ button to select the item you wish to change, then press the ENTER button.

 Press the ◀ or ▶ button to change the value of the item, then press the ENTER button.





5



Selecting the Fan

Operates or stops the TV's internal Fan.

Fans inside the TV are used to reduce the temperature inside the TV. To reduce the noise of the fan, you may stop the fan by setting the Fan to "Off". The temperature of the top and the front of the TV may increase when you watch the TV for a long period of time while the fan is stopped, but the TV will operate normally.

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Fan", then Press the ENTER button.



Press the ▲ or ▼ button to select "On" or "Off", then press the ENTER button.



4



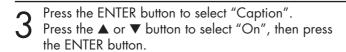
Viewing Closed Captions (On-Screen Text Messages) - Analog

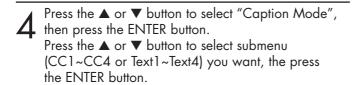
The Analog Caption function operates in either analog RF channel mode or external signal mode.

Press the Menu button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.

Quick way to select Caption: Simply press the "CAPTION" button under the cover of the remote control.

Press the ▲ or ▼ button to select "Caption", then press the ENTER button.





- The default is "CC1".
 - CC1: The Primary Synchronous Caption Service.

 These are captions in the primary language that must be in sync with the sound, preferably matched to a specific frame.
 - CC2: The Special Non-Synchronous Use Captions.
 This channel carries data that is intended to
 augment information carried in the program.
 - CC3: Secondary Synchronous Caption Service.
 Alternate program-related caption data,
 typically second language captions.
 - CC4 : Special Non-Synchronous Use Captions. Similar to CC2.









Press the MENU button to exit.

Notes

- The Caption feature doesn't work in COMPONENT(480p, 720p, 1080i), DVI, HDMI modes.
- The availability of captions depends on the program being broadcast.



Viewing Closed Captions (On-Screen Text Messages) - Digital

The Digital Captions function operates on digital channels.

Press the MENU button.

Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Caption", then press the ENTER button.



Press the ENTER button to select "Caption".

Press the ▲ or ▼ button to select "On", then press the ENTER button.



Press the ▲ or ▼ button to select "Caption Mode", then press the ENTER button.

Press the ▲ or ▼ button to select submenu (Service1~Service6, CC1~CC4 or Text1~Text4) you want, then press the ENTER button.



5 Press the ▲ or ▼ button to select "Caption Options", then press the ENTER button.

Notes

- "Caption Options" are available only when "Service1 ~ Service6" can be selected in "Caption Mode".
- SERVICE1~6 in digital caption mode may not be available according to the broadcasting type.



6

Press the ▲ or ▼ button to select "Size", then press the ENTER button.

Press the ▲ or ▼ button to select the desired Caption option, then press the ENTER button.

Press the Up or Down button to select the desired sub-menu options (see options below), then press ENTER.

<u>Notes</u>

- The availability of captions depends on the program being broadcast.
- The "default" means to follow the rule of broadcasting.



7

Press the MENU button to exit.

Size

This option consists of "Default", "Small", "Standard", and "Large". The default is "Standard".

Font Style

This option consists of "Default", "StyleO \sim Style 7". You can change the font you want. The default is "Style O".

Foreground Color

This option consists of "Default", "White", "Black", "Red", "Green", "Blue", "Yellow", "Magenta", and "Cyan". You can change the color of the letter. The default is "White".

Background Color

This option consists of "Default", "White", "Black", "Red", "Green", "Blue", "Yellow", "Magenta", and "Cyan". You can change the background color of the caption. The default is "Black".

• Foreground Opacity

This option consists of "Default", "Transparent", "Translucent", "Solid", and "Flashing". You can change the opacity of the letter.

Background Opacity

This option consists of "Default", "Transparent", "Translucent", "Solid", and "Flashing". You can change the background opacity of the caption.

• Return to Default

This option sets each of "Size", "Font Style", "Foreground Color", "Bakcground color", "Foreground Opacity", and "Background Opacity" to its default.

Alternate method:

Press the CAPTION button on the remote control repeatedly to select "On" or "Off".

Caption : On



Menu Transparency Level

Adjusts the transparency of the menu screen.

Press the MENU button.

Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Menu Transparency", then press the ENTER button. Press the ▲ or ▼ button to select level, then press the ENTER button.





Setting the Function Help

Displays help on the menu functions.

Press the MENU button.

Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "Function Help", then press the ENTER button.



Press the ▼ button to select "On", then press the ENTER button.



4



Using the V-Chip

The V-Chip feature automatically locks out programs that are deemed inappropriate for children. The user must enter a PIN (personal ID number) before any of the V-Chip restrictions are set up or changed.

Notes: • When the V-chip feature is activated, the PIP features do not function.

The V-Chip does not work if the input is DTV (HD or SD).

Setting Up Your Personal ID Number (PIN)

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.
The message "Enter PIN" will appear.
Enter your 4 digit PIN number.

Note

- The default PIN number of a new TV set is "0-0-0-0".
- The "V-Chip" screen will appear. Press the ▲ or ▼ button to select "Change PIN", then press the ENTER button.





The Change PIN screen will appear.
Choose any 4 digits for your PIN and enter them.
As soon as the 4 digits are entered, the "Confirm new PIN" screen appears. Re-enter the same 4 digits. When the Confirm screen disappears, your PIN has been memorized.

Press the MENU button to exit.

Note

If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0-0: Power Off. → Mute → 8 → 2 → 4 → Power On.

How to Enable/Disable the V-Chip

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.
The message "Enter PIN" will appear.
Enter your 4 digit PIN number.



0~9 Enter PIN

Ⅲ Return

The "V-Chip" screen will appear. To enable the V-Chip feature, press the ENTER button so that the "V-Chip Lock" field is "On". (Pressing the ▲ or ▼ button will alternate between "On" and "Off".) Press the ENTER button.



Press the MENU button to exit.

How to Set up Restrictions using the "TV Parental Guidelines"

First, set up a personal identification number (PIN), and enable the V-Chip. (See previous section.) Parental restrictions can be set up using either of two methods: The TV guidelines or the MPAA rating.

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.

The message "Enter PIN" will appear. Enter your 4-digit PIN number.



The "V-Chip" screen will appear. Press the ▲ or ▼ button to select "TV Parental Guidelines", then press the ENTER button.



The "TV Parental Guidelines" screen will appear.

Press the ▲ or ▼ button to select one of the six ages based categories:

TV-Y	Young children
TV-Y7	Children 7 and over
TV-G	General audience
TV-PG	Parental guidance
TV-14	Viewers 14 and over
TV-MA	Mature audience



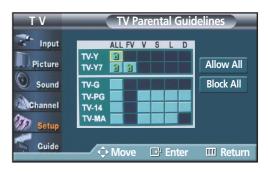
At this point, one of the TV-Ratings is selected.

Press the ENTER button. Depending on your existing setup, a symbol will be selected.

(Blank = Unblocked, = Blocked)

While "¹ is selected, press the ENTER button to block or unblock the category.

To select a different TV-Rating, press the ▲ or ▼ button and then repeat the process.



Note 1: The TV-Y, TV-Y7, TV-G, TV-PG, TV-14 and TV-MA have additional options. See the next step to change any of the following sub-ratings:

FV: Fantasy violence

D: Sexually Suggestive Dialog

L: Adult Language

S: Sexual situation

V: Violence

Note 2: The V-Chip will automatically block certain categories that are "more restrictive". For example, if you block "TV-Y" category, then TV-Y7 will automatically be blocked. Similarly, if you block the TV-G category, then all the categories in the "young adult" group will be blocked (TV-Y, TV-Y7, TV-G, TV-PG, TV-14, and TV-MA). The sub-ratings (D, L, S, V) work together similarly. (See next section.)

How to set the FV, D, L, S and V sub-ratings.

First, select one of these TV-Ratings: TV-Y, TV-Y7, TV-G, TV-PG, TV-14, or TV-MA (See Step 4, on previous page), and press the ▶ button.

A symbol "1" will be displayed for each sub-rating.

While "a" is selected, press the ENTER button to go to a sub rating.

Press ENTER to block the sub rating. To select a different TV-Rating, press the ▲ or ▼ button and then repeat the process.

Note: The V-chip will automatically block certain categories that are "More restrictive". For example, if you block "L" sub-rating in TV-PG, then the "L" sub-ratings in TV-14 and TV-MA will automatically be blocked.

Press the MENU button to clear all the screens. (Or proceed to the next section, and set up additional restrictions based on the MPAA codes.)

<u>Note</u>

 These categories consist of two separate groups: TV-Y and TV-Y7 (young children through age 7), and TV-G through TV-MA (everybody else).

The restrictions for these two groups work independently: If a household includes very young children as well as young adults, the TV guidelines must be set up separately for each age group. (See next step.)

How to Set up Restrictions using the MPAA Ratings: G, PG, PG-13, R, NC-17, X, NR

The MPAA rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies. When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either MPAA or TV-Ratings).

Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button.



Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.
The message "Enter PIN" will appear.
Enter your 4 digit PIN number.



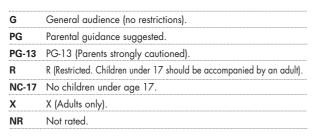
The "V-Chip" screen will appear. Press the ▲ or ▼ button to select "MPAA Rating", then press the ENTER button.



The "MPAA Rating" screen will appear.

Repeatedly press the ▲ or ▼ button to select a particular MPAA category.

Pressing the ▲ or ▼ button will cycle through the MPAA categories:





While a particular category is selected, press the ENTER button to activate it.

A selected symbol "1" will be displayed.

Press the ENTER button to block or unblock the category.

Note: The V-Chip will automatically block any category that is "more restrictive". For example, if you block the "PG-13" category, then "R", "NC-17" and "X" will automatically be blocked also.

Plasma Disp

How to Reset the TV after the V-Chip Blocks a Channel ("Emergency Escape")

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the

following message will appear: Enter your PIN number. Channel Is Locked by TV-pg[S] Use the NUMBER buttons to enter your pin number to unlock all channels. Press EXIT to clear PIN. Press MENU for main menu. Channel Is Locked by TV-pg[L] Use the NUMBER buttons to enter your pin number to unlock all channels. Press EXIT to clear PIN.
Press MENU for main menu. To resume normal viewing, tune to a different channel using CH or CH button. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels. In this case, use the V-Chip function for an "emergency escape": Press the MENU button. Press the ▲ or ▼ button to select "Setup", then press the ENTER button. Press the ▲ or ▼ button to select "V-Chip", then press the ENTER button.

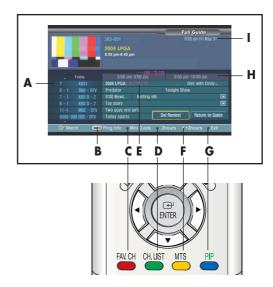
Enter your PIN number, and press the \blacktriangle or \blacktriangledown button to temporarily disable the V-Chip Lock.



Electronic Program Guide

Your TV has an "Electronic Program Guide" to help you navigate through all the possible viewing options. The EPG supplies information, such as program lists, start and end times of all available channels.

In addition, detailed information about the program is often available in the EPG. (The availability and the amount of program details will vary depending on the broadcaster.)



Viewing the Electronic Program Guide

- A Displays which channel is currently selected to show program information in the Channel Guide.
- **B** Press to view detailed information for the selected digital program.
- C Switches to the mini program guide. The mini guide shows the titles of the available programs of one channel. Press the Red button on the remote control. The set default guide is Mini Guide.
- **D** Scrolls backwards quickly (2 hours). Press the Green button on the remote control.
- E Displays titles and other details about upcoming programs of particular channels. Highlight the program and press the INFO button to see additional and detailed information. (The availability of additional details depends on the broadcaster.) Use the ▲/▼ buttons to search information about another channel.
- **F** Scrolls forward quickly (2 hours). Press the Yellow button on the remote control and repeatedly press the ENTER button the appropriate time is displayed.
- **G** Exits from the Program Guide and returns to normal viewing mode. Press the Blue button on the remote control.
- **H** Displays the program times (arranged in 1 hour time blocks).
- I Displays the current time and date.

<u>Note</u>

You can use the GUIDE button on the remote control to display the Electronic Program Guide.
 The EPG begins its list with the channel that is currently active.
 The EPG will only work when you are receiving digital channels.

Using the Electronic Program Guide

Press the MENU button.

Press the ▲ or ▼ button to select "Guide", then press the ENTER button.



Press the ▲ or ▼ button to select "Default Guide", then press the ENTER button.



- Press the ▲ or ▼ button to select "Mini Guide" or "Full Guide", then press the ENTER button.
 - Mini Guide : Displays the guide for one channel.
 - Full Guide : Displays the guide for all channels.



4

Press the MENU button to exit.

Viewing Information about a Single Channel

Press the MENU button.

Press the ▲ or ▼ button to select "Guide", then press the ENTER button.



Press the ENTER button to select "Mini Guide".

Press the \triangle or ∇ buttons to view information about one channel by time.

You can switch between Full Guide mode and Mini Guide mode by pressing the Red button repeatedly.

Select the program you want by pressing the ▲ or ▼ buttons and press the INFO button on the remote control.

• ENTER button : Press to watch the current program

or to add the program to reminder

list.

• Red button: Press to switch to the program

guide for all channels. Press again to switch to the program information for the

selected channel.

• Blue button: Press to exit.

• INFO button: Press to view detailed information

for the selected digital program.



Press the Blue button or EXIT button to exit.

Notes

- You can also view information about a single channel by pressing the GUIDE button on the remote control. (The EPG should be pre-set in Mini Guide mode.)
- Press the INFO button on the remote control to view the program information for the current channel.

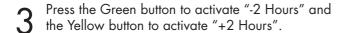
Viewing Information about Channels

Displays the program time and content for all channels. This function is available only when the program is digital.

Press the MENU button.

Press the ▲ or ▼ button to select "Guide", then press the ENTER button.

Press the ▲ or ▼ button to select "Full Guide", then press the ENTER button.

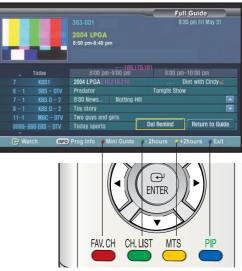


- INFO button: Displays detailed information for the selected digital program.
- ▲/▼ button: Displays program information for each channel, based on the time. Select your desired program using the ▲/▼ button, and then press the INFO button to view the program information for the selected program.
- Red button: Each press switches between program information for one channel and all channels.
- Green button: Press to view the program information from two hours ago.
- Yellow button: Press to view the program information for two hours from now.
- Blue button: Press to exit.
- ENTER button: Press to watch the current program or to add the program to reminder list.

You may now:

- Jump to a channel directly: Use the ▲ or ▼
 buttons to highlight the program in the ► column
 and press the enter button.
- Obtain additional program details: Highlight the title of a program using the ▲, ▼, ◄, or ▶ buttons and press the INFO button.
- Exit from the Program Guide and return to normal viewing mode: Press the Blue button or the EXIT button.





Notes

- The current time displayed on the program information is subject to the time information sent from the broadcasting station, so it may differ from the actual time.
- Press the GUIDE button on the remote control to view the program information for all channels.
 However, this function is available only when the default program guide setting is set to
 "Full Guide".

Viewing the Reminder List

If you have made a scheduled viewing list of programs you would like to see, the channel will be automatically switched to the scheduled program at the scheduled time even if you are watching another program.

Press the MENU button.

Press the ▲ or ▼ button to select "Guide", then press the ENTER button.



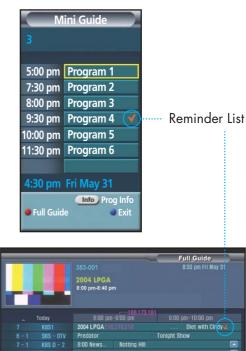
? Press the ENTER button to select "Full Guide".

Press the ▲ or ▼ button to select programs you would like to see, then press the enter button. The symbol "✔" will be displayed. Each press of the enter button will switch between "Reminded" and "Clear".

Press the MENU button to exit.

Noto

• Up to 8 programs can be reminded.



To view the Reminder List

Press the MENU button.

Press the ▲ or ▼ button to select "Guide", then press the ENTER button.



Press the ▲ or ▼ button to select "Reminder List", then press the ENTER button.



To remove the scheduled programs

Press the ▲ or ▼ button to select a program to be removed, then press the ENTER button.

To remove all programs, press the ◀ or ▶ button to select "Cancel All", then press the ENTER button.



? Press the MENU button to exit.



PLASMA DISPLAY PANEL

Appendix ?

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? Troubleshooting

Before you call a service technician, please scan this list of problems and possible solutions. It may save you time and money.

Problem	Possible Solution
Poor picture.	Check all wire connections.
No picture or sound.	Try another channel. Press the SOURCE button. Make sure the TV is plugged in. Check the antenna connections.
Poor sound quality.	Try another channel. Adjust the volume.
Your remote control does not operate the PDP.	Press the "MODE" button to put your remote control in the "TV" mode.
The PDP won't turn on.	Check if the power plug is connected.
There is no screen image.	Check to see that both the PDP and the source are plugged in and turned on.
The image is too light or too dark.	Adjust the Brightness or Contrast settings.
The image is too large or too small.	Adjust the Size settings.
Digital broadcasting screen problem.	Please check the digital signal strength and input antenna.



Care and Maintenance

With proper care, your PDP will give you many years of service. Please follow these guidelines to get the maximum performance from your PDP.

Identifying Problems

- Do not put the PDP near extremely hot, cold, humid or dusty places.
- Do not put the PDP near appliances that create magnetic fields.
- Keep the ventilation openings clear.
- Do not place the PDP on a rough and slanted surface, such as cloth or paper.

Liquids

• Do not place liquids near or on the PDP.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your PDP with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

• If your PDP is suddenly moved from a cold to a warm place, unplug the power cord for at least two hours so that moisture that may have formed inside the unit can dry completely.

? Specifications

Exterior design and product specifications are subject to change without prior notice to improve the performance of this product.

Model		HP-P5581	
Dimensions	Display	1425 (W) x 114 (D) x 825.4 (H) mm / 56.10 (W) X 4.49 (D) X 32.50 (H) inches (Without Stand)	
		1425 (W) x 490 (D) x 921 (H) mm / 56.10 (W) X 19.29 (D) X 36.26 (H) inches (With Stand)	
Weight	Display	59.2 Kg / 130.5 lbs (Without Stand)	
		68 Kg / 149.9 lbs (With Stand)	
Voltage		AC 120 V~, 60 Hz	
Power Consumption		510 W	
Number of Pixels		1366 (H) x 768 (V)	
Screen Size		140 Cm / 55 inches	
ANTENNA input		VHF, UHF (75Ω unbalanced)	
VIDEO input		AV1	
		AV2 (SIDE)	
		S-VIDEO 1	
		S-VIDEO2 (SIDE)	
		COMPONENT1-480i/480p/720p/1080i	
		DVI	
		HDMI	
AUDIO input		AV1	
		AV2 (SIDE)	
		S-VIDEO 1	
		S-VIDEO2 (SIDE)	
		COMPONENT1-480i/480p/720p/1080i	
		DVI	
Monitor Output		AUDIO (L/R)	
Audio Output		SUB WOOFER	
		OPTICAL	
		COAXIAL	
Speaker Outpu	t	15W+15W (8 Ω)	



? Memo





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